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Preface

The *Natural Gas Monthly (NGM)* is prepared in the Natural Gas Division, Office of Oil and Gas, Energy Information Administration (EIA), U.S. Department of Energy (DOE), under the direction of Joan E. Heinkel.

General questions and comments regarding the *NGM* may be referred to Ann M. Ducca (202) 586-6137. Specific technical questions may be referred to the appropriate persons listed in Appendix E.

The *NGM* highlights activities, events, and analyses of interest to public and private sector organizations associated with the natural gas industry. Volume and price data are presented each month for natural gas production, distribution, consumption, and interstate pipeline activities. Producer-related activities and underground storage data are also reported. From time to time, the *NGM* features articles designed to assist readers in using and interpreting natural gas information.

The data in this publication are collected on surveys conducted by the EIA to fulfill its responsibilities for gathering and reporting energy data. Some of the data are collected under the authority of the Federal Energy Regulatory Commission (FERC), an independent commission within the DOE, which has jurisdiction primarily in the regulation of electric utilities and the interstate natural gas industry. Geographic coverage is the 50 States and the District of Columbia.

Explanatory Notes supplement the information found in tables of the report. A description of the data collection surveys that support the *NGM* is provided in the Data Sources section. A glossary of the terms used in this report is also provided to assist readers in understanding the data presented in this publication.

All natural gas volumes are reported at a pressure base of 14.73 pounds per square inch absolute (psia) and at 60 degrees Fahrenheit. Cubic feet are converted to cubic meters by applying a factor of 0.02831685.

In its annual review of costs for domestic oil and gas field equipment and production operations, the Energy Information Administration reports that costs of equipping and operating oil and gas leases rose during 1997. The report, *Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations, 1994 Through 1997,* can be accessed via the Worldwide Web at the EIA web site, http://www.eia.doe.gov. Then choose either "Petroleum", "Natural Gas", or "What's New" to access the publication. For more information, contact the National Energy Information Center at 202-586-8800.

Common Abbreviations Used in the Natural Gas Monthly

AGA	American Gas Association
Bbl	Barrels
BLS	Bureau of Labor Statistics, U.S. Department of Labor
Bcf	Billion Cubic Feet
BOM	Bureau of Mines, U.S. Department of the Interior
Btu	British Thermal Unit
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
EIA	Energy Information Administration, U.S. Department of Energy
FERC	Federal Energy Regulatory Commission
IOGCC	Interstate Oil and Gas Compact Commission
LNG	Liquefied Natural Gas
Mcf	Thousand Cubic Feet
MMBtu	Million British Thermal Units
MMcf	Million Cubic Feet
MMS	United States Minerals Management Service, U.S. Department of the Interior
NGL	Natural Gas Liquids
OCS	Outer Continental Shelf
STIFS	Short-Term Integrated Forecasting System
STEO	Short Term Energy Outlook
Tcf	Trillion Cubic Feet

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EIA Corrects Errors in Its Drilling Activity Estimates Series

William Trapmann and Phil Shambaugh

Introduction

The Energy Information Administration (EIA) has published monthly and annual estimates of oil and gas drilling activity since 1978. These data are key information for many industry analysts, serving as a leading indicator of trends in the industry and a barometer of general industry status. They are assessed directly for trends, as well as in combination with other measures to assess the productivity and profitability of upstream industry operations. They are a major reference point for policymakers at both the Federal and State level. Users in the private sector include financial analysts assessing investment opportunities. Firms with upstream operations also rely on these data in apprising their circumstances relative those of their competitors.

EIA does not itself collect drilling activity data. Instead, it relies on a commercial source for data on oil, gas, service, and dry well completions, and on well recompletions. These data are provided to EIA monthly on an *as reported* basis. Due to lags in the reporting of well completions which can (though most do not) range up to several years, EIA must statistically adjust the *as reported* completion data to obtain estimates of the numbers of completions that *would have been reported had there been no reporting lags*. Essentially, this is done by assuming that the pattern of reporting lags observed in the past holds true for the present, and making appropriate upward adjustments to the reported numbers of completions on that basis.

As an integral part of its data gathering function, EIA routinely monitors data quality and periodically conducts work intended to enhance its data systems. During a recent effort to enhance EIA's well completion data system,[1] the detection of unusual patterns in the well completion data as received led to an expanded examination of these data. Unfortunately, substantial discrepancies between the data as received by EIA and correct completion counts were identified. For total wells by year, the errors ranged up to more than 2,100 wells, 11 percent of the 1995 total, and the impact of these errors extended backward in time to at least the early 1980s. **Users of the EIA drilling activity data are therefore advised that the drilling activity data which were published or otherwise distributed by EIA prior to February 1998 are substantially in error.**

When the magnitude and extent of the *as reported* well completion data problem was confirmed, EIA suspended its publication and distribution of updated drilling data and EIA staff proceeded to acquire corrected *as reported* files and then revise the statistical portion of its drilling data system to reflect the new, correct information. EIA has now resolved the data problem and generated revised time series estimates for well completions and footage drilled. While the overall industry trends remain consistent with those of the prior, incorrect series, the revised series do exhibit certain differences, chief among which are:

- Drilling activity did attain its peak level in 1981, but the industry completed an estimated 91,469 wells as opposed to the prior estimate of 90,034.
- Gas and oil exploratory wells were greatly under-reported in the post-1985 period with more than half of the wells missing in certain years.
- The decline in drilling in the mid 1990s was not as steep as previously indicated. The drop in prices did lead to fewer wells by 1995, but they had been underestimated by 2,135 wells—a difference of 11 percent.
- Success rates, measured as the share of successful gas and oil wells relative to total wells, improved greatly as early as 1986 as seen in the revised drilling statistics. The prior well data series did not reflect the improvements in exploration until the mid 1990s.
- The relative share of gas and oil wells in successful well counts is comparable.

The remainder of this report first presents background on the drilling activity data: what the records are, how they are collected, and the resulting difficulties in developing timely measures of recent drilling activity. This is

[1]Additional detail on data issues and the Well Completion Estimation Procedure (WELCOM) is provided in a later section of this report.

followed by a discussion of the nature and extent of errors in the raw data files received by EIA. Last, the revised data are presented along with key differences between the prior and revised series and their implications for understanding industry performance.

Drilling Activity Data

About the data. The most widely cited measures of drilling activity consist of summarized information based on individual well records that describe the completion type and status of each well. The individual records contain diverse information regarding the well, including the American Petroleum Institute (API) well number, the well completion date, the well class,[2] the well type[3], location data, and measures of the footage drilled. Drilling data traditionally had been compiled and presented as the records are received, a practice which predates EIA's publication and use of these data. (EIA continued this practice as part of its data operation until the mid 1980s.) This approach, however, reflects the reporting activity as measured by the recipient, rather than the industry's real-time activity level.

Well completion data by report date ("as-reported completions") are not an accurate indicator of actual drilling activity. A preferred measure of drilling activity is a record of well counts and footage drilled by completion date. The completion date marks the point at which the well generally becomes available for production. Drilling measured by completion date is thus more appropriate for industry analysis purposes than drilling measured by reporting date. Well counts by reporting date would match counts by completion date *if* wells were reported with no delay, however, that is not the case. In the early 1980s, EIA staff noticed unusual patterns in the as-reported completion data, which reflected distortions due to a variable and sometimes very extended reporting lag.

The reporting lag often creates incorrect magnitudes for peaks, troughs, or changes in drilling activity. The data as reported also can obscure the timing of these events. The lags are particularly troublesome at times when the drilling trends shift. The historical data provide some especially clear examples of the distortions that can be caused by recording wells by report date. Wells aggregated by completion date now show that total completions peaked in 1981 at 91,469 and had fallen to 84,299 by 1982 (Figure SR1). This pattern reflects the effect of oil price levels on drilling activity and is consistent with the data on rotary rigs running, both of which peaked in 1981. By comparison, total well counts as reported in 1981 and 1982 were 78,538 and 85,795, respectively.[4] The higher count in 1982 reflects an influx of reports of drilling activity that occurred in 1981 and earlier years. The reporting lags were sufficient to cause the 1981 count to be off by roughly 13,000 wells, a 14 percent discrepancy, with the result that (on the basis of the as-reported well completions) the wrong year is indicated as the peak year for drilling activity. Another critical example of reporting lag distortion is the measure of drilling in 1986, when the industry suffered a severe collapse in oil and gas prices. The number of wells actually completed in 1986 were about 40,000, while the number of well completion records received was over 58,000. Reliance on the as-reported well counts would have significantly masked the serious impact of the price decline on the industry. By that time, however, EIA had taken steps to convert its drilling activity series to an as completed basis, which avoided this problem.

Adjusting for the reporting lag. Concerns about drilling activity data arose at EIA in the early 1980s. These concerns resulted in a plan to develop a procedure that would allow aggregation and reporting of the data on a completion date basis. As noted earlier, EIA does not collect well completion data directly, but relies on a vendor to collect the data, which EIA purchases as a monthly compilation. These are the only such data available, so attempts to convert to a completion date basis must utilize these data. Further, the quality of the EIA's drilling activity estimates is directly dependent upon the quality of the received vendor records.

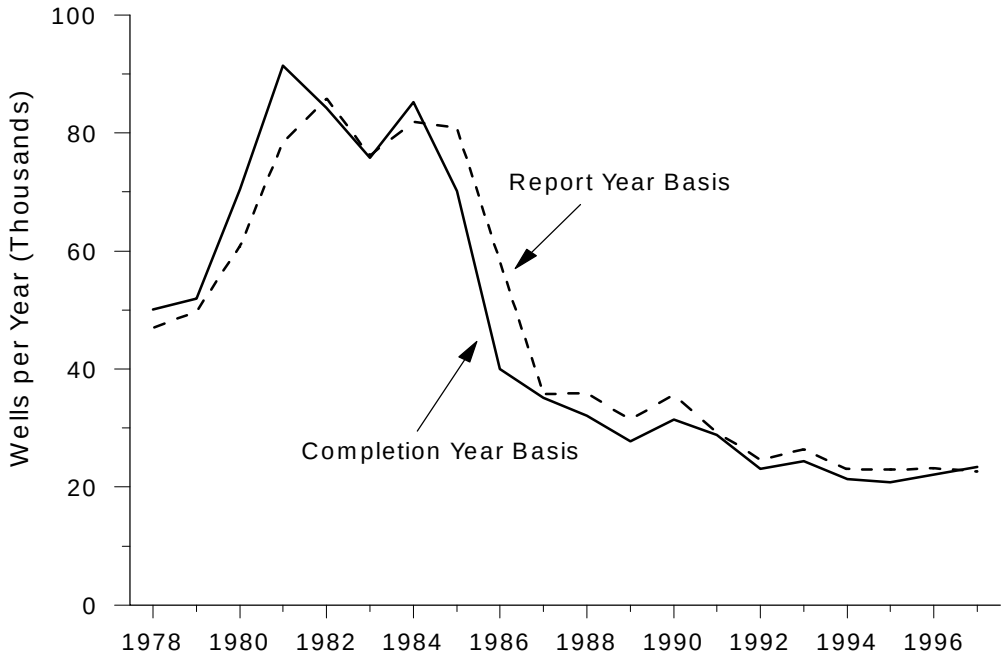
The conversion to completion date required the development of a statistical model with which the as-received completions data could be adjusted for incomplete reporting due to the time lags between completion and reporting. The reporting lags result in cumulative as-reported well counts that are quite incomplete in most months. For example, the data reported in 1986 show that only 14 percent of wells are reported in the same month that they are completed. Twelve months after completion, almost 23 percent of the well completion records had not been received. Even after 60 months of reporting, 2.3 percent of the well completions had not been reported (Figure SR2). These

[2] *Well class* is either exploratory or developmental. Exploratory wells are identified further as either new field wildcat, new pool wildcat, deeper pool test, shallower pool test, or extension well (American Association of Petroleum Geologists (AAPG) well classification codes 1 to 5).

[3] The three *well types* are oil, gas or dry. By convention, wells with both oil and gas zones are categorized as oil completions.

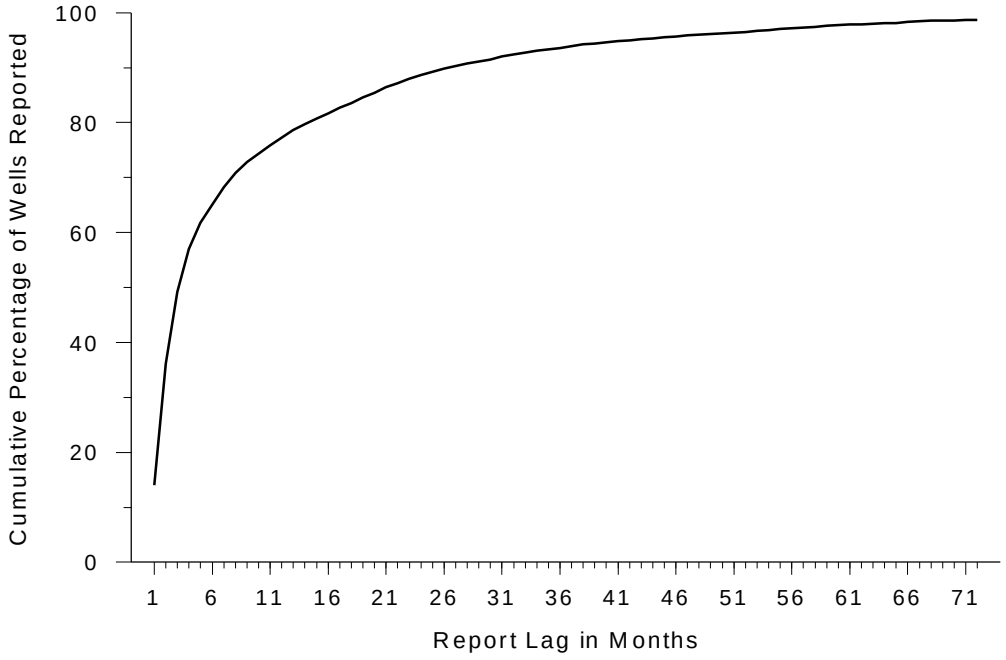
[4] *Monthly Energy Review*, EIA (DOE/EIA-0035), January 1984.

Figure SR1. Well Counts by Completion Date and Report Date



Source: Energy Information Administration, Office of Oil and Gas.

Figure SR2. Reporting Lags for Wells Reported in 1986



Source: Energy Information Administration, Office of Oil and Gas.

reporting lags affect each of the six subcategories (well type by well class), although the effects are variable among the subcategories.

EIA's efforts to convert the well completion statistics from an as-received date to a completion date basis resulted in the Well Completion Estimation Procedure (WELCOM). WELCOM is a system that summarizes the historical records and produces estimates for drilling activity in the most recent years. Estimates are monthly at a national level for six major categories: oil-exploratory, oil-development, gas-exploratory, gas-development, dry-exploratory, and dry-development. Analysis of the data available by the mid 1980s led to the conclusion at that time that the data are fairly complete by 60 months after the actual completion date. Thus, WELCOM uses the cumulative recorded well counts, along with data on rotary rigs running, to construct estimates of the actual numbers of wells completions, and footage drilled, during the most recent 60 months of activity. EIA has used WELCOM since March 1985 to provide the drilling activity estimates published in the *Monthly Energy Review* and the *Annual Energy Review*, as well as other EIA reports. The same drilling data and estimates have also been a part of the foundation underlying numerous analytical efforts including the *Annual Energy Outlook*, the *Short-Term Energy Outlook*, and *Performance Profiles of Major Energy Producers*.

Over the years, EIA's operation of WELCOM has included annual reestimation of the system coefficients as well as minor adjustments to the overall implementation of the methodology. The basic system remains essentially the same as that which was developed in 1984. Since then, the patterns and attributes of drilling have substantially evolved as a result of various regulatory reform initiatives and the shift to generally lower oil and gas prices since the mid 1980s. The collection and processing system for the well records has itself changed. Other changes, such as the fact that the data for active rigs now identifies them by whether they are targeted to oil or gas, have offered opportunities to refine the estimation procedure and enhance the precision of the estimates.

A project to enhance the WELCOM procedure was undertaken by EIA in 1997. Its goal was to take maximum advantage of available data, modify the model specification as appropriate, and test alternate statistical approaches to the estimation of the model's coefficients. The associated data work had an unintended impact, however, when curious patterns in the reported well counts were noticed. Well counts can be and often are highly variable between months. Reported well counts for some months in 1995 and 1996, however, were about half the counts of the prior and succeeding months.

Collaborative examination of the data with the current vendor verified the existence of errors and omissions in the data files provided to EIA in these periods. Review of other time periods disclosed errors that were pervasive in the data over an extensive period. The data files since 1987 were missing some records and contained duplicates of others, updates to many records were not passed along, and records for recompletions -- which weren't expected -- were present in files for some months but not in others.

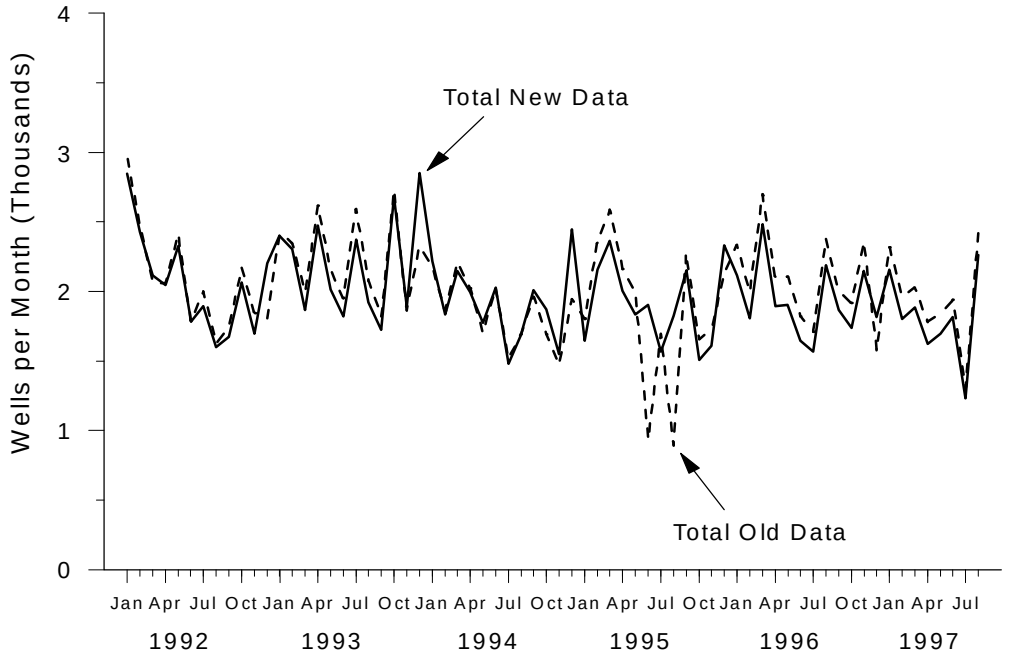
While ready detection of large discrepancies would be virtually certain in a typical EIA data system, the well completion data have a number of attributes that hinder detection. First, the work with the raw data and all initial processing of it are conducted outside EIA. Such an 'arms-length' relationship with the basic data does not allow complete familiarity with the data, and it hampers efforts to investigate concerns with the data. Second, the well completion data are inherently quite erratic, so even sizeable fluctuations are not *prima facie* a cause for concern. A comparison of the well counts as initially received and the corrected counts for 1990 to 1994 show only slight discrepancies, with few exceptions, for the years immediately prior to 1995 (Figure SR3). Yet another factor that may impede ready detection of data problems is the statistically-based processing of the data. The limited numbers of wells reported early after completion are 'inflated' by large factors, which in itself will tend to obscure reflection of data problems in the resulting estimates. Last—and arguably paramount—there is no other timely source of information that can be used to validate the data going into or the estimates coming out of WELCOM.

Resolution of the problem required acquisition of the corrected data from the vendor and re-estimation of the WELCOM coefficients. This has now been accomplished, and EIA has resumed publication of drilling activity data. The revised series exhibit a number of key differences from the prior erroneous series, which may affect perception and understanding of the industry.

Comparative Assessment of the Revised and Prior Estimates

Differences between the prior and revised data series. Comparison of the corrected drilling activity estimate series with the prior erroneous series shows that the overall trends are comparable, with a few significant exceptions. Drilling peaked in 1981 at 91,469 as opposed

Figure SR3. Monthly Well Counts as Reported, 1992-1997



Source: Energy Information Administration, Office of Oil and Gas.

to the previous measure of 90,034 (Table SR1). At least as significant is the drilling pattern of the mid 1990s. The prior estimates for the 1993 to 1996 period showed that the low oil and gas prices through 1995 contributed to annual well completion declines of 17 percent in 1994, then 5 percent. The 1996 surge in oil and gas prices led to a 22 percent rise in drilling activity according to the earlier data. Unfortunately, it appears that estimates based on the flawed data overstated the industry reaction in both directions. The revised drilling statistics show that the relative worsening of economic conditions in 1994 resulted in a decline of 12 percent in wells completed, followed by a 3 percent decline in 1995. This casts a much different light on the industry's responsiveness to the economics of the time. The revised 1995 estimate of 8,252 gas well completions indicates a more moderate reaction to the worsening economic conditions. In total, the revised series shows 2,135 more wells were drilled in 1995 than previously estimated. The lesser decline in 1995 wells also results in a smaller relative recovery in response to the rise in both oil and gas prices in 1996, 7 percent in contrast to the 22 percent change indicated by the prior series.

A number of significant differences are apparent in the exploratory well counts. The key change is that many more oil and gas exploratory wells were completed than previously estimated. This difference appears in the data for the period 1985 through 1995. The shift in both oil and gas completions between series is sizeable, with more than twice as many exploratory wells having been completed in most cases during 1989 through 1992. Dry holes do not shift correspondingly, so the associated success rates[5] are much higher than previously believed. According to the revised drilling statistics, the earlier peak success rate of 30 percent was surpassed by 1986, and success rates have been sustained above 40 percent since 1989. The improvement in industry performance evidenced by this substantial rise in success rates was indicated to be a relatively recent phenomenon according to the previous data series, with rates below 30 percent until 1994. Thus, the corrected drilling activity data provides a fundamentally different picture of industry performance and the investment incentives for firms engaged in exploratory activities (Figure SR4).

Most other aspects of the aggregate well counts, such as the relative numbers of oil and gas wells, are comparable between the prior and corrected drilling activity data series. While most characteristics of the drilling data are consistent between the two series, the changes in drilling levels for certain years and the new measures of exploratory success are so fundamental to an

[5] *Success rates* are measured as the ratio of successful oil and gas completions relative to the sum of oil and gas completions plus dry holes.

Table SR1. Oil Wells, Gas Wells, and Dry Holes, Estimates Before and After Data Correction

Estimates Prior to Data Correction

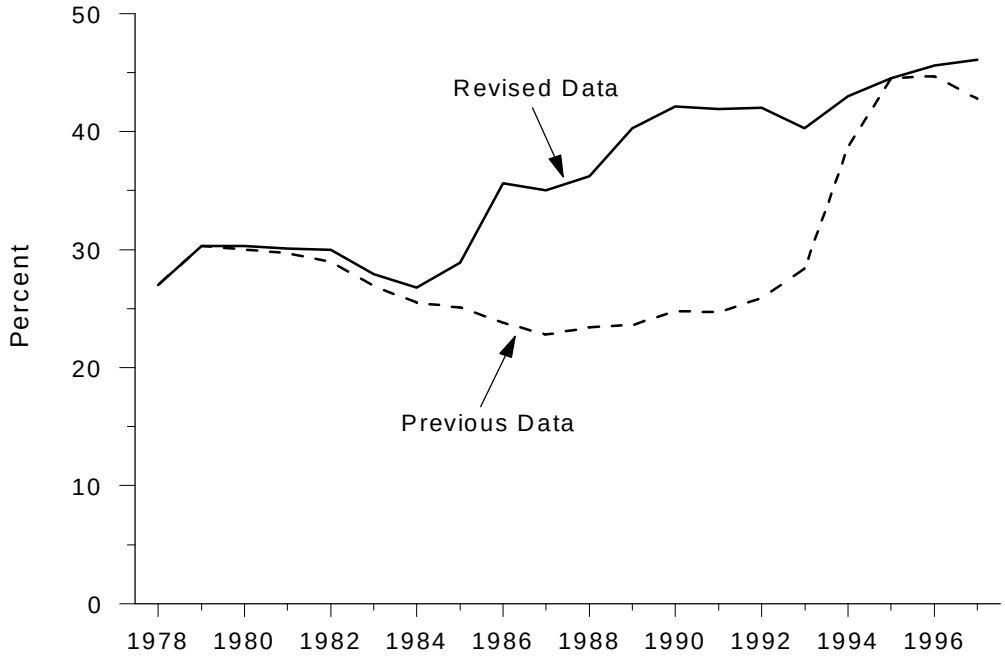
Year	Exploratory				Developmental				All Wells			
	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total
1978	1,191	1,792	8,054	11,037	17,874	12,613	8,537	39,024	19,065	14,405	16,591	50,061
1979	1,335	1,920	7,478	10,733	19,368	13,250	8,560	41,178	20,703	15,170	16,038	51,911
1980	1,781	2,094	9,035	12,910	30,497	15,129	11,302	56,928	32,278	17,223	20,337	69,838
1981	2,667	2,533	12,297	17,497	40,176	17,374	14,987	72,537	42,843	19,907	27,284	90,034
1982	2,470	2,168	11,346	15,984	36,672	16,776	15,036	68,484	39,142	18,944	26,382	84,468
1983	2,113	1,660	10,271	14,044	35,086	12,896	14,065	62,047	37,199	14,556	24,336	76,091
1984	2,335	1,599	11,482	15,416	40,250	15,413	14,315	69,978	42,585	17,012	25,797	85,394
1985	1,879	1,282	9,445	12,606	33,142	12,970	11,763	57,875	35,021	14,252	21,208	70,481
1986	988	733	5,511	7,232	17,713	7,402	7,255	32,370	18,701	8,135	12,766	39,602
1987	859	673	5,179	6,711	15,327	7,084	6,302	28,713	16,186	7,757	11,481	35,424
1988	792	663	4,766	6,221	12,530	7,575	5,476	25,581	13,322	8,238	10,242	31,802
1989	580	654	4,001	5,235	9,759	8,571	4,490	22,820	10,339	9,225	8,491	28,055
1990	628	641	3,855	5,124	11,522	10,064	4,757	26,343	12,150	10,705	8,612	31,467
1991	573	542	3,393	4,508	11,335	8,910	4,521	24,766	11,908	9,452	7,914	29,274
1992	506	423	2,656	3,585	8,517	7,668	3,995	20,180	9,023	8,091	6,651	23,765
1993	485	514	2,514	3,513	8,244	9,350	4,214	21,808	8,729	9,864	6,728	25,321
1994	614	777	2,203	3,594	6,166	8,200	3,070	17,436	6,780	8,977	5,273	21,030
1995	734	835	1,960	3,529	6,144	6,534	2,448	15,126	6,878	7,369	4,408	18,655
1996	822	943	2,180	3,945	7,275	8,412	3,108	18,795	8,097	9,355	5,288	22,740
1997	904	856	2,352	4,112	7,134	9,424	3,656	20,214	8,038	10,280	6,008	24,326

Estimates After Data Correction

Year	Exploratory				Developmental				All Wells			
	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total
1978	1,191	1,792	8,054	11,037	17,874	12,613	8,537	39,024	19,065	14,405	16,591	50,061
1979	1,335	1,920	7,478	10,733	19,368	13,250	8,560	41,178	20,703	15,170	16,038	51,911
1980	1,807	2,126	9,052	12,985	30,784	15,158	11,562	57,504	32,591	17,284	20,614	70,489
1981	2,747	2,574	12,357	17,678	40,821	17,552	15,418	73,791	43,568	20,126	27,775	91,469
1982	2,634	2,217	11,320	16,171	36,495	16,729	14,904	68,128	39,129	18,946	26,224	84,299
1983	2,233	1,715	10,197	14,145	34,869	12,843	13,961	61,673	37,102	14,558	24,158	75,818
1984	2,518	1,682	11,458	15,658	40,021	15,357	14,198	69,576	42,539	17,039	25,656	85,234
1985	2,240	1,495	9,189	12,924	32,691	12,698	11,838	57,227	34,931	14,193	21,027	70,151
1986	2,004	1,156	5,726	8,886	16,974	7,256	6,855	31,085	18,978	8,412	12,581	39,971
1987	1,692	1,095	5,187	7,974	14,402	6,843	5,903	27,148	16,094	7,938	11,090	35,122
1988	1,498	1,253	4,850	7,601	12,063	7,206	5,179	24,448	13,561	8,459	10,029	32,049
1989	1,216	1,502	4,025	6,743	8,967	7,921	4,144	21,032	10,183	9,423	8,169	27,775
1990	1,262	1,527	3,838	6,627	10,919	9,433	4,462	24,814	12,181	10,960	8,300	31,441
1991	1,221	1,247	3,420	5,888	10,500	8,233	4,184	22,917	11,721	9,480	7,604	28,805
1992	995	896	2,616	4,507	7,769	7,265	3,493	18,527	8,764	8,161	6,109	23,034
1993	867	879	2,585	4,331	7,385	9,062	3,639	20,086	8,252	9,941	6,224	24,417
1994	817	987	2,393	4,197	5,772	8,558	2,851	17,181	6,589	9,545	5,244	21,378
1995	855	975	2,285	4,115	6,647	7,277	2,751	16,675	7,502	8,252	5,036	20,790
1996	822	1,020	2,194	4,036	7,042	8,094	2,982	18,118	7,864	9,114	5,176	22,154
1997	801	961	2,056	3,818	7,215	9,229	3,159	19,603	8,016	10,190	5,215	23,421

Sources: Energy Information Administration (EIA). **Estimates Prior to Data Correction:** *Monthly Energy Review (MER)* (August 1997). Estimates for 1997 are double the figure for the first 6 months. **Estimates After Data Correction:** As published in the February 1998 issue of *MER*.

Figure SR4. Exploratory Success Rates for Previous and Revised Data



Source: Energy Information Administration, Office of Oil and Gas.

understanding of the industry that their implications for analysts must be considered.

Implications of the data shift. The significance of the impact is likely to depend on the particular use of the data. EIA itself uses these data in a variety of applications. In particular, they support analysis integral to two prominent information products: the *Annual Energy Outlook* (AEO) and the *Short-Term Energy Outlook*. The drilling data are important measures used in the National Energy Modeling System, which is the tool used to produce the integrated energy market projections that are published in the AEO. Even knowing the role of the data in support of the AEO, the effect on the results is uncertain.

The productivity of exploratory drilling is represented in the NEMS by finding rates, which are measured as the ratio of reserve additions to wells completed. The increase in the revised gas exploratory well counts raise the denominator, so the finding rate will shift downward correspondingly. This reduction in productivity would lower the available market supplies in future years, all else being equal. However, the corresponding analysis that determines the level of drilling must also be revised, because it is predicated on a low well count. Thus, the expected drilling response under varying conditions is underestimated in the projection because it is calibrated to an inaccurately low benchmark. When these functional relations are reestimated, drilling response should be greater in the future than previously expected. The net result of these two offsetting influences on the supply outlook is not obvious.

The long-term supply outlook is also stimulated by improved performance in the search for oil and gas as indicated by the higher success rates, which enhances the economic attractiveness of exploratory drilling opportunities. Dry holes represent an unavoidable part of the search for oil and gas that add to project cost, lowering the expected profitability of exploratory projects. Higher average success rates imply that the drilling costs of an average exploration project are reduced. This improvement to industry economics suggests that the economically recoverable portion of the technically recoverable resource base may be larger than previously estimated. The volumetric impact of this benefit should be limited, however, because this improvement will impact oil and gas accumulations that are marginal in size anyway. The large fields that provide the bulk of expected market supplies are unaffected.

Maintaining data quality in the future. EIA conducts a wide range of data quality activities to monitor its data systems. The long-lived problems affecting the drilling

data series maintained by EIA are a clear indication that further efforts in this regard are necessary. Development of new standards for data quality assurance for this series will proceed along a number of paths including closer monitoring of the as-received well completion data and comparison of estimated drilling data by completion month to other data that are available on a timely basis. An indication of the difficulty in establishing any definitive set of guidelines can be seen in the data for wells reported each month. While the well counts in the majority of months vary by 20 percent or less, fluctuations exceeding 30 percent are common. Even relative shifts beyond 40 percent are frequent enough as not to be necessarily considered a cause for alarm (Figure SR5).

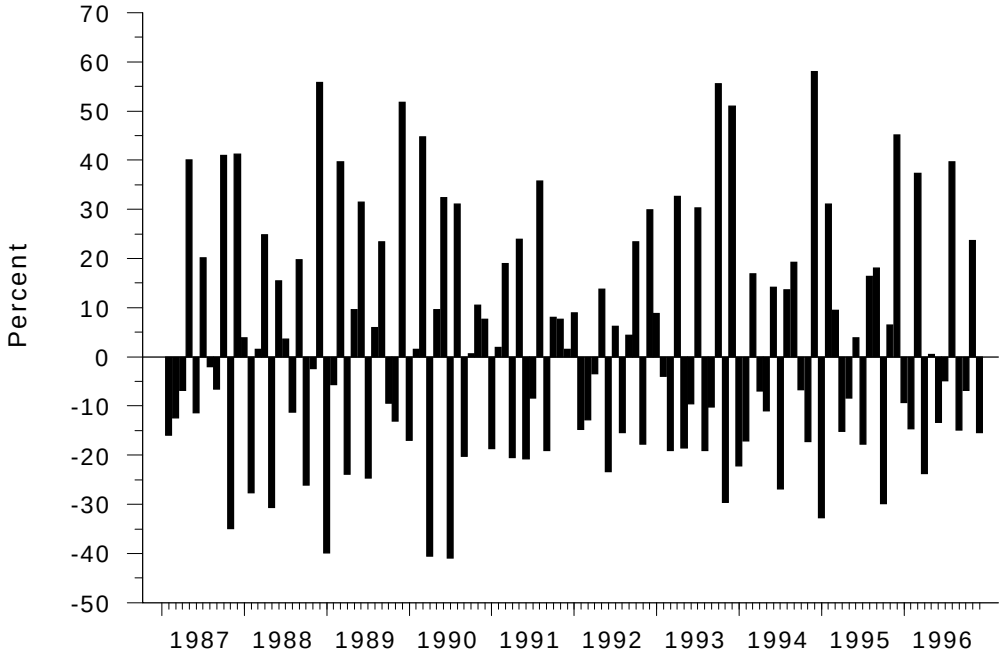
Drilling-related data are used to evaluate the estimates coming from WELCOM. These data include rotary rigs running, seismic crews, and oil and gas prices. EIA staff is also considering the possibility of obtaining relevant data that may exist at the State level in the major producing States to corroborate the EIA estimates. Drilling-related measures from the major States, while not comprehensive, could prove to be useful as a comparator, since most drilling occurs in a limited number of States. These enhanced monitoring actions will avoid future data problems that might require extensive revision of the series.

Conclusions

EIA has inadvertently been publishing erroneous estimates of oil and gas well drilling activity since the late 1980s. Problems in the raw data obtained from a vendor were detected in late 1997 and have since been resolved. Monthly publication of the corrected EIA drilling activity estimates series resumed with the February 1998 edition of the *Monthly Energy Review*. The corrected series' major characteristics are comparable in most regards with the prior erroneous series. There are, however a few exceptions that directly bear on fundamental aspects of the industry such as its responses to changing economic conditions and its approach to drilling opportunities.

EIA does not collect the raw drilling data itself, so some data errors may remain extremely difficult to discover, identify, and remedy in a timely manner. However, EIA will make every possible effort to ensure that the same data problem, or a data problem of similar magnitude, does not happen again.

Figure SR5. Change in Wells Reported Compared to Prior Month



Source: Energy Information Administration, Office of Oil and Gas.

Highlights

Overview

This issue of the *Natural Gas Monthly* presents the most recent estimates of natural gas data from the Energy Information Administration (EIA). Estimates extend through March 1998 for many data series. This issue also contains the special report, "EIA Corrects Errors in Its Drilling Activity Estimates Series." Prior to February 1998, drilling activity data published in EIA's *Monthly Energy Review* were substantially in error. This report describes the problems and what was done to correct them.

Highlights of the natural gas data contained in this issue of the Natural Gas Monthly are:

- Working gas in underground natural gas storage facilities is estimated to be 1,060 billion cubic feet on March 31, 1998, the end of the 1997-98 heating season. This is the first time working gas has ended the heating season above 1,000 billion cubic feet since March 1995.

- Dry natural gas production and net imports for the first quarter of 1998 are each estimated to be 1 percent above their respective levels in the first quarter of 1997. However, net imports in March 1998, are estimated to be 8.3 billion cubic feet per day, 6 percent higher than in March 1997.

- Electric utilities are estimated to have consumed 2,962 billion cubic feet of natural gas in 1997, an 8-percent increase compared with 1996. This enabled the natural gas share of net electric power generation to remain at 9 percent in 1997 while generation from coal and petroleum also increased.

- Average natural gas prices are estimated to be higher in 1997, but for most series, the increases are significantly less than what occurred in 1996. The average wellhead price in 1997 is estimated to be $2.42 per thousand cubic feet, 12 percent higher than in 1996. Industrial prices saw the lowest growth among the end-use sectors, increasing only 3 percent in 1997.

Supply

For the first quarter of 1998, dry natural gas production and net imports are estimated to be 1 percent above the levels of a year ago (Figure HI1). Dry production in March 1998 is estimated to be 1,648 billion cubic feet, 1 percent higher than in March 1997 (Table 1). Colder-than-normal temperatures in March 1998 helped to boost net imports to an estimated 257 billion cubic feet (Table 2). This was equivalent to the daily rate of imports in February, 8.3 billion cubic feet per day, and was 6 percent higher than in March 1997.

Preliminary estimates show that the 1997-98 heating season (November 1 through March 31) will end with more natural gas in underground storage facilities than in either of the past 2 years. Colder temperatures in March 1998 resulted in an estimated 334 billion cubic feet of net withdrawals from storage, more than double the amount withdrawn in March 1997 (Table 10). But reduced demand because of warmer-than-normal temperatures earlier in the heating season resulted in an estimated 1,060 billion cubic feet of working gas in storage at the end of March 1998 (Figure HI2). At the end of March in 1996 and 1997, the levels of working gas were 758 and 991 billion cubic feet, respectively.

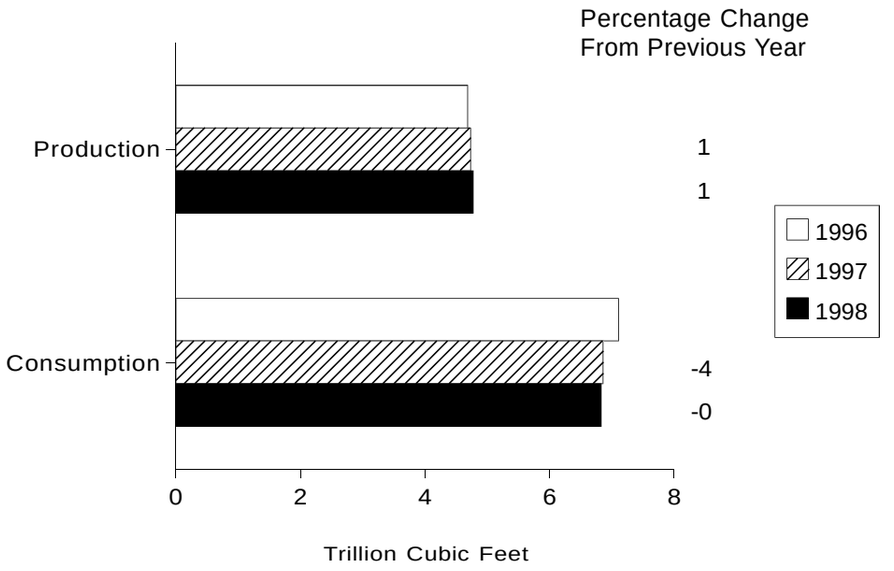
Canadian storage levels also are very high compared with last year. According to the Canadian Gas Association, there was an estimated 178 billion cubic feet of natural gas in Canadian storage facilities (including liquefied natural gas) as of March 13, 1998, compared with only 72 billion cubic feet a year earlier.[1]

End-Use Consumption

Natural gas consumption by end users is estimated to be 6,307 billion cubic feet during the first quarter of 1998, just below that of first quarter 1997. Industrial consump-

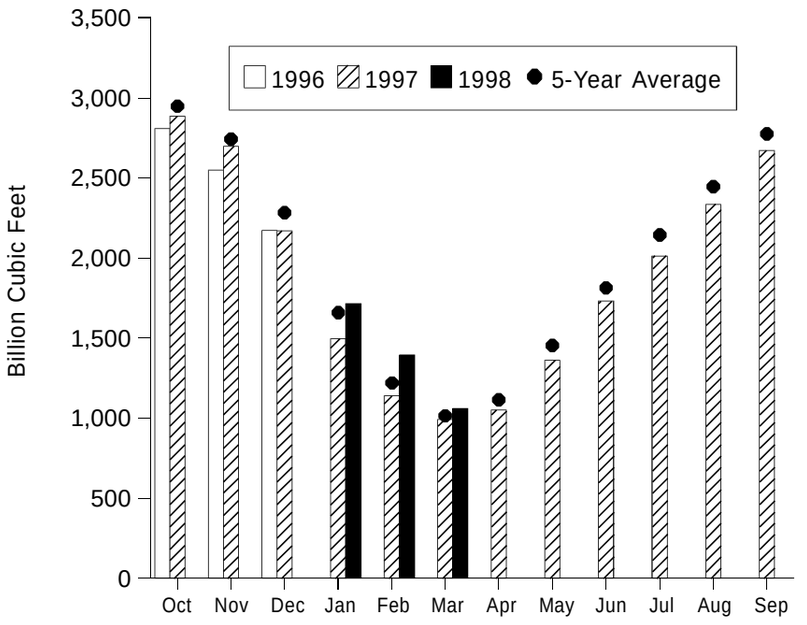
[1]Canadian Gas Association, *Canadian Gas Association Storage Survey* (March 20, 1998), Table 1a. Data exclude the approximately 25 billion cubic feet of storage at the Alberta hub in western Canada.

Figure HI1. Natural Gas Production and Consumption, January-March, 1996-1998



Source: Table 2.

Figure HI2. Working Gas in Underground Storage in the United States, 1996-1998



Note: The 5-year average is calculated using the latest available monthly data. For example, the December average is calculated from December storage levels for 1993 to 1997 while the January average is calculated from January levels for 1994 to 1998. Data are reported as of the end of the month, thus October data represent the beginning of the heating season.

Sources: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and Short-Term Integrated Forecasting System.

tion has increased somewhat this year, and colder weather in March 1998 has mitigated reduced demand in the residential and commercial sectors that resulted from unusually warm weather during January and February 1998. (Estimates for electric utility consumption are available only through December 1997.)

Industrial consumption of natural gas is estimated to be 3 percent higher in the first quarter of 1998 compared with the same period in 1997. Consumption in March 1998 is estimated to be 798 billion cubic feet.

In January and February 1998, heating degree days were 18 and 10 percent lower, respectively, than for the same months in 1997 (Table 26). Cumulatively through February, residential and commercial natural gas consumption were 7 and 6 percent lower, respectively, in 1998 than in 1997. However, cooler weather in March 1998 resulted in increased consumption of natural gas to meet space heating needs. Residential natural gas consumption is estimated to be 660 billion cubic feet in March 1998, 9 percent higher than in March 1997 (Table 3). Commercial consumption is estimated to be 386 billion cubic feet in March 1998, 8 percent higher than in March 1997. Thus, for the first quarter of 1998, residential consumption is estimated to be only 3 percent below that of last year and commercial consumption is estimated to be only 2 percent lower (Figure HI3).

Electric utilities consumed an estimated 2,962 billion cubic feet of natural gas in 1997, 8 percent more than in 1996. The most recent estimate, for December 1997, shows that electric utilities consumed 198 billion cubic feet of natural gas that month, 50 percent more than in December 1996. This was also the first time since 1983 that electric utilities consumed more natural gas in December than in November.[2]

Gas-fired net generation of electric power by electric utilities increased 8 percent in 1997, reaching 284 billion kilowatthours.[3] This enabled natural gas to maintain its 9-percent share of total electric power generation from 1996 to 1997 even though coal- and petroleum-fired power generation also increased.

Prices

The average natural gas wellhead price fell from November to December 1997, reflecting a pattern similar to that shown in the natural gas futures market at the Henry Hub. The preliminary estimate of the December 1997 wellhead price is $2.47 per thousand cubic feet (Table 4). This is 24 percent lower than in December 1996, but is the first time since July that the monthly wellhead price in 1997 was below that of 1996. The average wellhead price for the full year 1997 is estimated to be $2.42 per thousand cubic feet, 12 percent higher than in 1996. (In comparison, the 1996 average wellhead price was 40 percent higher than in 1995.)

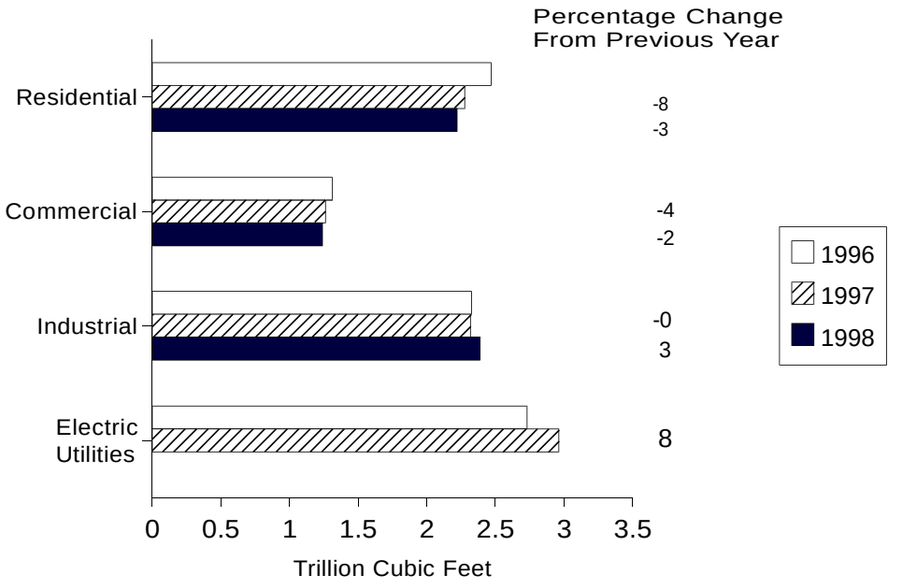
The estimated average price paid for natural gas by end users also declined between November and December 1997, but for the year, average prices are higher than in 1996. Residential and commercial[4] prices declined 4 and 3 percent, respectively, between November and December 1997, but for the year were 9 and 6 percent higher, respectively, than in 1996. Residential users paid an estimated $6.89 per thousand cubic feet for natural gas in 1997, while commercial users paid an average of $5.75 (Figure HI4).

[2]Electric utilities consumed 214 billion cubic feet of natural gas in November 1983 and 218 billion cubic feet in December 1983. Energy Information Administration, Historical Monthly Energy Review, 1973-1992, DOE/EIA-0035(73-92) (Washington, DC, August 1994), Table 4.4.

[3]Energy Information Administration, Monthly Energy Review, DOE/EIA-0035(98/02) (Washington, DC, February 1998), Table 7.1.

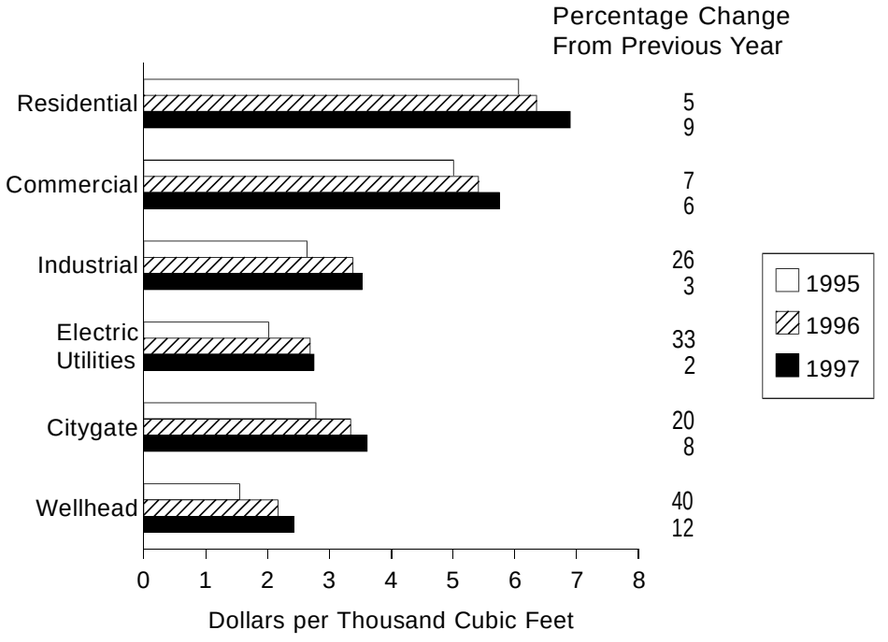
[4]End-use prices in the residential, commercial, and industrial sectors are for onsystem gas sales only. While monthly onsystem sales are nearly 100 percent of residential deliveries, in 1997 they were from 53 to 73 percent of commercial deliveries and only 13 to 19 percent of industrial deliveries (Table 4).

Figure HI3. Natural Gas Delivered to Consumers, January-March, 1996-1998



Note: The reporting of electric utility deliveries is 3 months behind the reporting of other deliveries.
Source: Table 3.

Figure HI4. Average Delivered and Wellhead Natural Gas Prices, January-December 1995-1997



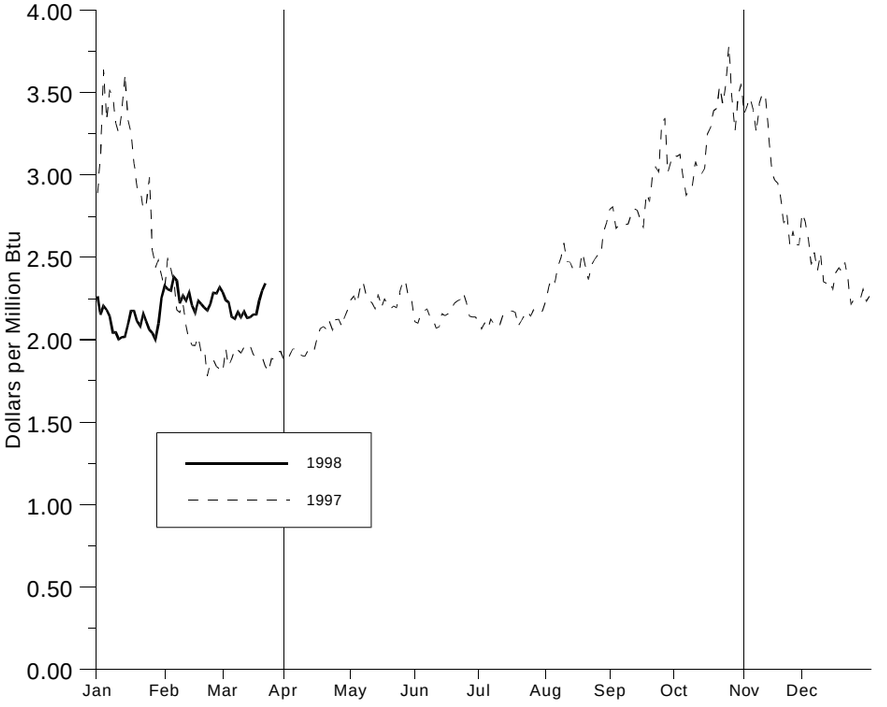
Note: Commercial and industrial average prices reflect onsystem sales only. The reporting of electric utility prices is 1 month behind the reporting of other prices..
Source: Table 4.

Industrial consumers saw the average price for natural gas fall 7 percent between November and December 1997, but for the year, the industrial price was 3 percent higher than in 1996. The average price of natural gas paid by industrial consumers in 1997 is estimated to be $3.53 per thousand cubic feet. (In 1996, the average price of natural gas paid by industrial users increased 26 percent compared with 1995.)

Data are not yet available to indicate whether electric utilities saw a drop in the average price paid for natural gas in December 1997. Cumulatively for January through November 1997, electric utilities paid an estimated $2.75 per thousand cubic feet for natural gas, 5 percent higher than for the same period in 1996.

Prices on the natural gas futures market at the Henry Hub generally remained in the range of $2.10 to $2.40 per million Btu from February through mid-March 1998, after having reached a low for the year of $2.001 per million Btu on January 28, 1998 (Figure HI5). Even the cold temperatures that brought snow to the southern States in March did not have much of an effect on the price series, as the extremely mild winter of 1997-98 left more than adequate levels of working gas in underground storage facilities. The settlement price on the April 1998 contract rose $0.206 per million Btu during the week ending March 20, 1998, settling at $2.343 per million Btu. The April contract will end trading on March 27, 1998. Last year, the April contract ended trading at $1.805 per million Btu.

Figure HI5. Daily Futures Settlement Prices at the Henry Hub



Note: The futures price is for the nearby month contract, that is, for the next contract to terminate trading. Contracts are traded on the New York Mercantile Exchange. April 1 is the beginning of the natural gas storage refill season. November 1 is the beginning of the heating season.

Source: Commodity Futures Trading Commission, Division of Economic Analysis.

Table 1. Summary of Natural Gas Production in the United States, 1992-1998

(Billion Cubic Feet)

Year and Month	Gross Withdrawals	Repressuring	Nonhydrocarbon Gases Removed[a]	Vented and Flared	Marketed Production (Wet)	Extraction Loss[b]	Dry Gas Production[c]
1992 Total	22,132	2,973	280	168	18,712	872	17,840
1993 Total	22,726	3,103	414	227	18,982	886	18,095
1994 Total	23,581	3,231	412	228	19,710	889	18,821
1995 Total	23,744	3,565	388	284	19,506	908	18,599
1996							
January	2,052	310	44	26	1,673	81	1,591
February	1,941	294	41	24	1,580	77	1,504
March	2,054	313	45	23	1,674	81	1,592
April	2,003	289	42	22	1,650	80	1,570
May	2,025	281	42	23	1,679	81	1,598
June	1,962	276	36	16	1,634	79	1,555
July	2,008	271	42	24	1,672	81	1,591
August	2,021	281	45	24	1,671	81	1,590
September	1,958	283	44	22	1,609	78	1,531
October	2,011	306	44	23	1,638	79	1,558
November	1,984	299	47	23	1,615	78	1,537
December	2,032	307	46	23	1,656	80	1,576
Total	24,052	3,510	518	272	19,751	958	18,793
1997							
January	E2,094	E327	E41	E21	E1,704	E79	E1,625
February	E1,910	E301	E38	E19	E1,553	E72	E1,480
March	E2,098	E322	E43	E23	E1,711	E80	E1,631
April	E1,985	E296	E42	E21	E1,626	E76	E1,550
May	E2,070	E313	E42	E21	E1,693	E79	E1,614
June	E1,967	E294	E40	E20	E1,612	E75	E1,537
July	E2,030	E295	E42	E22	E1,672	E78	E1,594
August	E2,010	E283	E42	E22	E1,664	E78	E1,586
September	RE1,972	E294	E42	E21	RE1,615	RE75	RE1,540
October	RE2,036	E318	E44	RE22	RE1,652	E77	RE1,575
November	RE2,019	RE308	E43	E22	RE1,647	E77	RE1,570
December	RE2,106	RE322	E45	E23	E1,717	E80	E1,637
Total	RE24,298	RE3,672	E504	RE257	RE19,865	RE926	RE18,939
1998							
January	RE2,128	RE327	RE45	RE23	E1,732	E84	E1,648
February(STIFS)	NA	NA	NA	NA	E1,562	E76	E1,486
March(STIFS)	NA	NA	NA	NA	E1,728	E80	E1,648
1998 YTD	NA	NA	NA	NA	E5,022	E240	E4,782
1997 YTD	E6,102	E950	E122	E63	E4,968	E231	E4,736
1996 YTD	6,047	918	130	73	4,927	239	4,688

[a] See Appendix A, Explanatory Note 1, for a discussion of data on Nonhydrocarbon Gases Removed.

[b] Extraction loss is only collected on an annual basis. Annually it is between 4 and 5 percent of marketed production. Monthly extraction loss is estimated from monthly marketed production by assuming that the preceding annual percentage remains constant for the next twelve months.

[c] Equal to marketed production (wet) minus extraction loss.

E = Estimated Data.

RE = Revised Estimated Data.

NA = Not Available.

Notes: Data for 1992 through 1996 are final. All other data are preliminary unless otherwise indicated and contain estimates for selected States (see Table 7). Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding.

Sources: 1992-1996: Energy Information Administration (EIA), *Natural Gas Annual 1996.* January 1997 through current month: Form EIA-895, "Monthly Quantity of Natural Gas Report," STIFS, and EIA estimates. See Appendix A, Explanatory Notes 1, 3, and 6, for discussion of computation and estimation procedures and revision policies.

Table 2. Supply and Disposition of Dry Natural Gas in the United States, 1992-1998

(Billion Cubic Feet)

Year and Month	Dry Gas Production	Supplemental Gaseous Fuels[a]	Net Imports	Net Storage Withdrawals[b]	Balancing Item[c]	Consumption[d]
1992 Total	17,840	118	1,921	173	-508	19,544
1993 Total	18,095	119	2,210	-36	-110	20,279
1994 Total	18,821	111	2,462	-286	-400	20,708
1995 Total	18,599	110	2,687	415	-230	21,581
1996						
January	1,591	12	249	723	-2	2,574
February	1,504	11	221	462	138	2,335
March	1,592	11	226	333	46	2,209
April	1,570	9	227	-119	139	1,826
May	1,598	6	244	-339	67	1,576
June	1,555	8	214	-388	65	1,454
July	1,591	8	222	-382	-3	1,436
August	1,590	8	221	-358	4	1,465
September	1,531	8	227	-379	12	1,399
October	1,558	9	236	-210	-62	1,531
November	1,537	10	238	272	-161	1,896
December	1,576	10	259	387	35	2,266
Total	18,793	109	2,784	2	279	21,967
1997						
January	E1,625	E13	264	684	-66	2,520
February	E1,480	E11	231	358	168	R2,248
March	E1,631	E10	243	155	R55	R2,095
April	E1,550	E9	221	-58	R63	R1,785
May	E1,614	E9	229	-321	R62	R1,594
June	E1,537	E7	226	-364	R26	R1,432
July	E1,594	E8	222	-281	R0	1,542
August	E1,586	E9	231	-322	R13	1,517
September	RE1,540	E7	232	-336	R-3	R1,440
October	RE1,575	E9	RE234	-211	R-78	R1,530
November	RE1,570	E11	RE254	189	R-142	R1,883
December	E1,637	E12	RE253	533	R-123	RE2,313
Total	RE18,939	E116	RE2,840	27	R-24	RE21,898
1998						
January	E1,648	RE12	RE259	R462	RE107	RE2,488
February(STIFS)	E1,486	E11	E232	RE320	RE100	RE2,149
March(STIFS)	E1,648	E10	E257	E334	E-54	E2,195
1998 YTD	E4,782	E33	E748	E1,116	E152	E6,832
1997 YTD	E4,736	E34	739	1,197	157	6,863
1996 YTD	4,688	34	697	1,518	182	7,118

[a] Supplemental gaseous fuels data are only collected on an annual basis except for the Dakota Gasification Inc. coal gasification facility which provides data each month. The ratio of annual supplemental fuels (excluding Dakota Gasification Inc.) to the sum of dry gas production, net imports, and net withdrawals from storage is calculated. This ratio, which varies between .0025 and .0037, is applied to the monthly sum of these three elements. The Dakota Gasification Inc. monthly value is added to the result to produce the monthly supplemental fuels estimate.

[b] Monthly and annual data for 1991 through 1996 include underground storage and liquefied natural gas storage. Data for January 1997 forward include underground storage only. See Appendix A, Explanatory Note 7 for discussion of computation procedures.

[c] Represents quantities lost and imbalances in data due to differences among data sources. See Appendix A, Explanatory Note 9, for full discussion.

[d] Consists of pipeline fuel use, lease and plant fuel use, vehicle fuel, and deliveries to consuming sectors as shown in Table 3.

[R] = Revised Data.

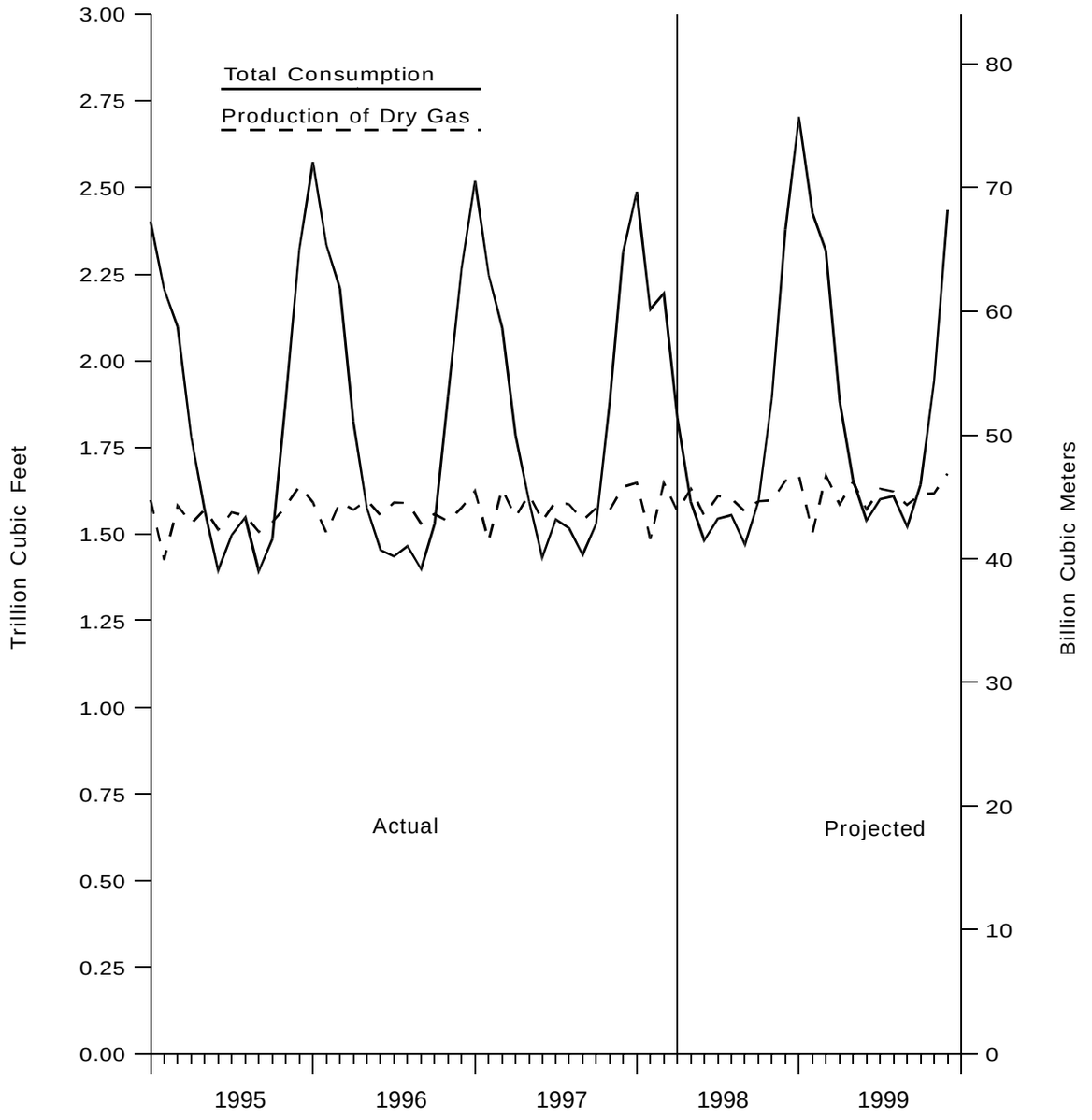
[E] = Estimated Data.

[RE] = Revised Estimated Data.

Notes: Data for 1992 through 1996 are final. All other data are preliminary unless otherwise indicated. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding.

Sources: 1992-1996: Energy Information Administration (EIA), *Natural Gas Annual 1996,* 1994-1995: EIA: Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1995 data only), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form EIA-191, " Monthly Underground Gas Storage Report," Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas," Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," EIA computations and *Natural Gas Annual 1996.* January 1997 through current month: EIA, Form EIA-895, "Monthly Quantity of Natural Gas Report," Form EIA-857, Form EIA-191, EIA computations, and estimates, Short-Term Integrated Forecasting System (STIFS) computations, and Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports. See Appendix A for dicussion of computation and estimation procedures and revision policies.

Figure 1. Production and Consumption of Natural Gas in the United States, 1995-1999



Sources: 1995 through the current month: Table 2. Projected data: Energy Information Administration, *Short-Term Energy Outlook* (October 1997).

Table 3. Natural Gas Consumption in the United States, 1992-1998

(Billion Cubic Feet)

Year and Month	Lease and Plant Fuel[a]	Pipeline Fuel[b]	Delivered to Consumers					Total Consumption
			Residential	Commercial	Industrial	Electric Utilities	Total	
1992 Total	1,171	588	4,690	[c]2,803	7,527	2,766	17,786	19,544
1993 Total	1,172	624	4,956	[c]2,863	7,981	2,682	18,483	20,279
1994 Total	1,124	685	4,848	[c]2,897	8,167	2,987	18,899	20,708
1995 Total	1,220	700	4,850	[c]3,034	8,580	3,197	19,660	21,581
1996								
January	106	85	934	480	800	168	2,382	2,574
February	101	77	831	443	747	137	2,158	2,335
March	106	72	705	387	781	156	2,030	2,209
April	104	59	474	284	736	170	1,663	1,826
May	106	50	271	183	701	264	1,420	1,576
June	102	46	162	133	710	299	1,305	1,454
July	105	46	124	126	677	358	1,285	1,436
August	105	47	118	123	704	367	1,312	1,465
September	102	45	138	124	706	285	1,253	1,399
October	104	49	243	171	737	226	1,378	1,531
November	103	62	503	295	764	170	1,732	1,896
December	105	74	738	409	807	132	2,086	2,266
Total	1,250	711	5,241	[c]3,161	8,870	2,732	20,006	21,967
1997								
January	107	82	908	480	804	139	2,331	2,520
February	97	73	[R]765	423	747	143	[R]2,078	[R]2,248
March	107	68	[R]605	359	[R]767	189	[R]1,920	[R]2,095
April	102	58	433	267	[R]732	193	[R]1,625	[R]1,785
May	106	52	285	206	[R]714	231	[R]1,436	[R]1,594
June	101	46	160	[R]149	[R]681	295	[R]1,285	[R]1,432
July	105	50	131	[R]139	692	427	1,388	1,542
August	104	49	119	[R]138	[R]716	390	[R]1,363	1,517
September	[R]101	47	132	140	[R]688	332	[R]1,293	[R]1,440
October	[R]103	50	236	[R]188	707	246	[R]1,377	[R]1,530
November	[R]103	61	[R]500	[R]315	[R]724	180	[R]1,719	[R]1,883
December	[R]107	[R]75	[R]732	[R]411	[R]789	[R]198	2,130	[RE]2,313
Total	[R]1,244	[R]709	[R]5,006	[R]3,217	[R]8,760	2,962	[R]19,945	[RE]21,898
1998								
January(STIFS)	[RE]104	[E]81	[E]869	[RE]453	[E]827	NA	[RE]2,303	[RE]2,488
February(STIFS)	[E]96	[E]70	[RE]692	[RE]399	[E]764	NA	[RE]1,983	[RE]2,149
March(STIFS)	[E]106	[E]68	[E]660	[E]386	[E]798	NA	[E]2,021	[E]2,195
1998 YTD[d]	[E]306	[E]219	[E]2,221	[E]1,238	[E]2,389	NA	[E]6,307	[E]6,832
1997 YTD	311	222	2,278	1,262	2,318	2,962	6,330	6,863
1996 YTD	313	234	2,470	1,310	2,329	2,732	6,570	7,118

[a] Plant fuel data are only collected on an annual basis and monthly lease fuel data are only collected annually. Lease and plant fuel estimates have been between 6 and 7 percent of marketed production annually. Monthly lease and plant fuel use is estimated from monthly marketed production by assuming that the preceding annual percentage remains constant for the next twelve months.

[b] Pipeline fuel use is only collected on an annual basis. Annually it is between 3 and 4 percent of total consumption. Monthly pipeline fuel data are estimated from monthly total consumption (excluding pipeline fuel) by assuming that the preceding annual percentage remains constant for the next twelve months.

[c] Vehicle fuel deliveries, in billion cubic feet, were 0.4 in 1991, 0.5 in 1992, 1.0 in 1993, 1.7 in 1994, 2.7 in 1995 and 2.9 in 1996.

[d] Year-to-date volume represents months for which volume information is available in the current year.

[R] = Revised Data.

[E] = Estimated Data.

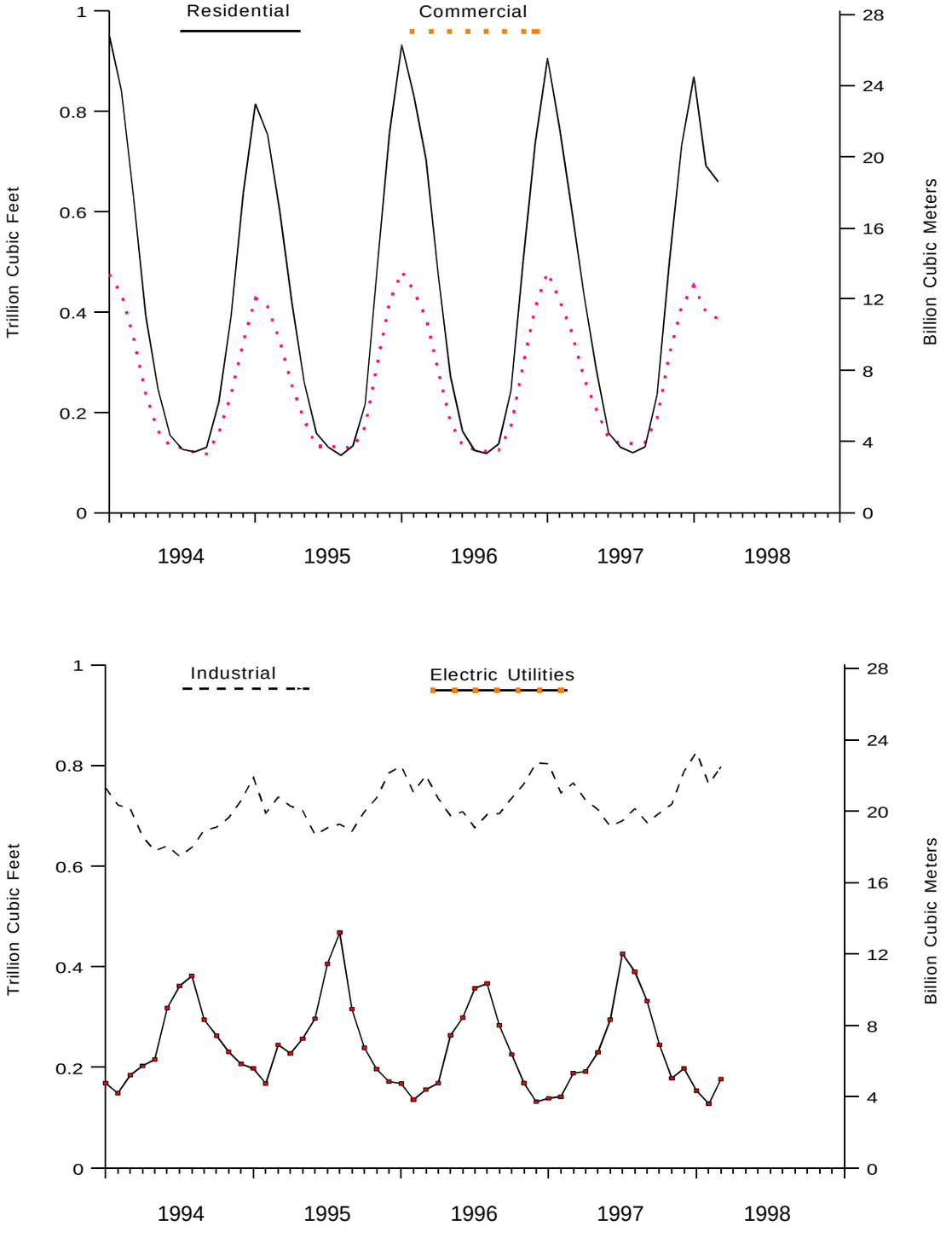
[RE] = Revised Estimated Data.

NA = Not Available.

Notes: Data for 1992 through 1996 are final. All other data are preliminary unless otherwise indicated. Estimates for the most recent three months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Sources: 1992-1996: Energy Information Administration (EIA): Form EIA-627, "Annual Quantity and Value of Natural Gas Report," (thru 1994), Form EIA-895 "Monthly Quantity of Natural Gas Report," (1995 forward), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form EIA-759, "Monthly Power Plant Report," EIA computations, and *Natural Gas Annual 1996.* January 1997 through the current month: EIA: Form 895, "Monthly Quantity of Natural Gas Report," Form EIA-857, Form EIA-759, and STIFS computations. See Appendix A, Explanatory Note 5, for computation procedures and revision policy.

Figure 2. Natural Gas Deliveries to Consumers in the United States, 1994-1998



Sources: *Natural Gas Annual*, Form EIA-857, and Form EIA-759.

Table 4. Selected National Average Natural Gas Prices, 1991-1997

(Dollars per Thousand Cubic Feet)

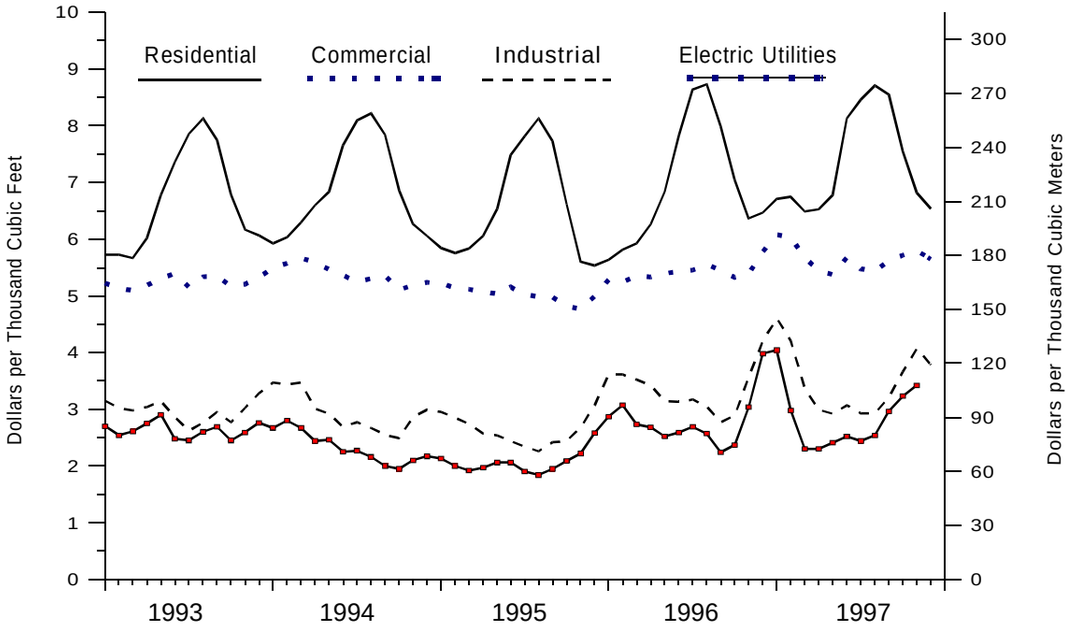
Year and Month	Wellhead Price[a]	City Gate Price	Delivered to Consumers					
			Residential Price	Commercial		Industrial		Electric Utilities Price
				Price	% of Total[b]	Price	% of Total[b]	
1991 Annual Average	1.64	2.90	5.82	4.81	85.1	2.69	32.7	2.18
1992 Annual Average	1.74	3.01	5.89	4.88	83.2	2.84	30.3	2.36
1993 Annual Average	2.04	3.21	6.16	5.22	83.9	3.07	29.7	2.61
1994 Annual Average	1.85	3.07	6.41	5.44	79.3	3.05	25.5	2.28
1995								
January	1.62	2.79	5.85	5.23	81.6	2.95	27.3	2.13
February	1.48	2.71	5.76	5.14	81.7	2.85	27.4	2.00
March	1.47	2.74	5.84	5.12	81.2	2.74	26.5	1.92
April	1.52	2.72	6.06	5.08	77.2	2.57	25.4	1.97
May	1.55	2.80	6.54	5.04	71.8	2.54	23.6	2.06
June	1.58	2.89	7.49	5.16	71.4	2.44	24.5	2.06
July	1.43	2.89	7.82	5.03	67.3	2.34	22.2	1.90
August	1.43	2.87	8.13	4.99	66.6	2.26	21.8	1.84
September	1.52	2.89	7.73	4.98	67.9	2.42	22.0	1.95
October	1.54	2.83	6.62	4.82	69.7	2.44	22.5	2.09
November	1.61	2.67	5.61	4.77	75.6	2.68	24.7	2.22
December	1.84	2.83	5.54	5.00	79.2	3.07	25.0	2.58
Annual Average	1.55	2.78	6.06	5.05	76.7	2.71	24.5	2.02
1996								
January	2.05	3.14	5.64	5.29	83.4	3.61	23.1	2.87
February	1.89	3.16	5.82	5.25	83.8	3.61	23.6	3.07
March	1.95	3.17	5.93	5.36	81.7	3.52	23.3	2.73
April	2.08	3.22	6.27	5.34	79.3	3.42	21.4	2.68
May	2.01	3.18	6.84	5.40	73.9	3.14	19.6	2.52
June	2.08	3.41	7.83	5.43	69.3	3.13	17.6	2.59
July	2.25	3.49	8.64	5.46	67.3	3.17	19.1	2.69
August	2.10	3.46	8.73	5.56	65.9	3.05	18.1	2.57
September	1.85	3.05	7.99	5.46	66.9	2.77	17.6	2.24
October	1.94	2.94	7.05	5.33	68.8	2.89	18.1	2.37
November	2.50	3.46	6.37	5.40	76.1	3.57	19.0	3.04
December	3.26	4.18	6.47	5.78	78.4	4.20	20.7	3.98
Annual Average	2.17	3.34	6.34	5.40	77.6	3.42	20.2	2.69
1997								
January	E3.66	4.27	6.71	6.08	72.5	4.61	18.5	4.04
February	E2.60	3.78	6.75	6.04	71.9	4.20	16.8	2.98
March	E1.72	3.06	6.49	5.68	68.6	R3.36	16.4	2.30
April	E1.82	2.94	6.53	5.45	66.3	R2.99	16.0	2.30
May	E2.04	3.16	6.78	5.38	59.4	R2.92	15.7	2.41
June	E2.18	3.44	8.13	5.68	R56.2	R3.07	R15.3	2.52
July	E2.15	3.61	8.46	5.48	R54.5	R2.93	13.6	2.44
August	E2.21	3.45	8.71	5.44	R52.8	R2.93	R13.1	2.54
September	E2.30	3.60	8.55	5.62	R53.9	R3.21	13.1	2.96
October	E2.85	3.93	R7.55	5.72	R57.8	3.66	14.4	3.23
November	E3.05	R3.86	R6.82	R5.80	R63.3	R4.07	R15.2	3.42
December	E2.47	3.48	6.54	5.65	67.5	3.78	14.3	NA
Annual Average	E2.42	3.61	6.89	5.75	65.0	3.53	15.3	NA

[a] See Appendix A, Explanatory Note 8, of the *Natural Gas Monthly (NGM)* for discussion of wellhead prices.
[b] Percentage of total deliveries represented by onsystem sales, see Figure 6. See Table 24 for breakdown by State.
R = Revised Data.
E = Estimated Data.
NA = Not Available.

Notes: Data for 1991 through 1996 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

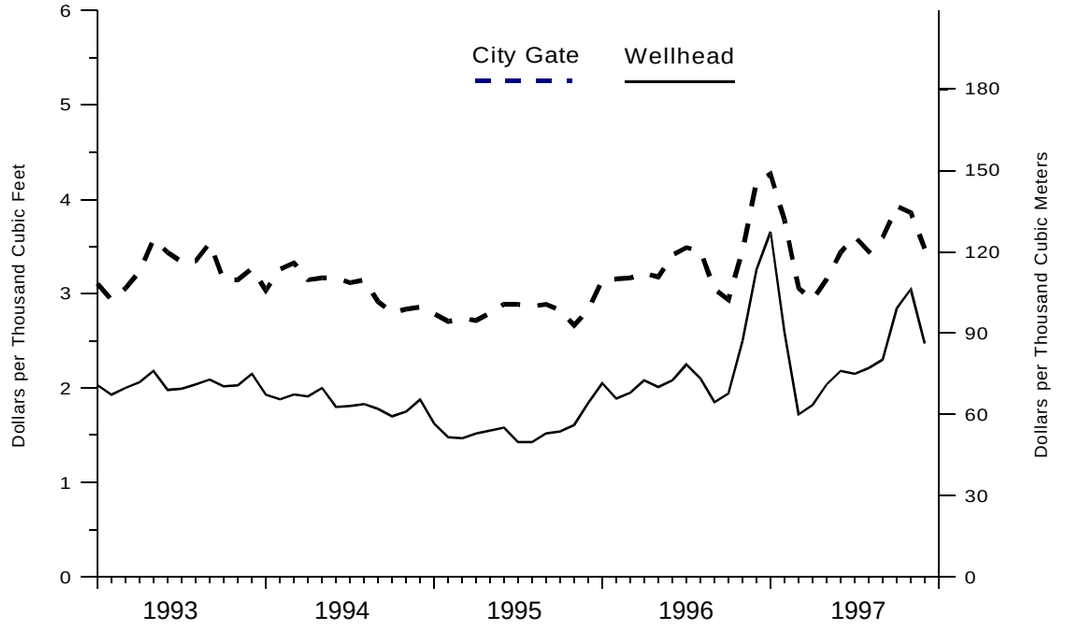
Sources: 1990-1996: Energy Information Administration (EIA) *Natural Gas Annual 1996.* 1997 forward: EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and EIA estimates. January 1997 through current month: See Appendix A, Explanatory Note 8 for estimation procedures and revision policy.

Figure 3. Average Price of Natural Gas Delivered to Consumers in the United States, 1993-1997



Source: Table 4.

Figure 4. Average Price of Natural Gas in the United States, 1993-1997



Source: Table 4.

Table 5. U.S. Natural Gas Imports, by Country, 1992-1998

(Volumes in Million Cubic Feet, Prices in Dollars per Thousand Cubic Feet)

Year and Month	Pipeline				LNG				Total	
	Canada		Mexico		Algeria		Other		Volume	Average Price
	Volume	Average Price	Volume	Average Price	Volume	Average Price	Volume	Average Price		
1992 Total	2,094,387	1.84	—	—	43,116	2.54	—	—	2,137,504	1.85
1993 Total	2,266,751	2.02	1,678	1.94	81,685	2.20	—	—	2,350,115	2.03
1994 Total	2,566,049	1.86	7,013	1.99	50,778	2.28	—	—	2,623,839	1.87
1995 Total	2,816,408	1.48	6,722	1.53	17,918	2.30	—	—	2,841,048	1.49
1996										
January	259,656	2.08	1,499	2.03	2,460	2.81	—	—	263,615	2.09
February	230,546	1.94	698	2.14	2,512	2.79	—	—	233,756	1.95
March	237,668	1.91	1,259	2.34	2,599	3.06	—	—	241,526	1.92
April	230,928	1.86	1,369	2.18	4,559	2.43	—	—	236,857	1.87
May	245,522	1.70	4,024	2.14	2,612	2.58	—	—	252,158	1.72
June	225,875	1.70	711	2.35	0	—	—	—	226,587	1.70
July	232,908	1.82	1,313	2.58	2,642	3.00	—	—	236,864	1.84
August	235,199	1.80	30	1.70	2,629	2.56	—	—	237,858	1.80
September	234,206	1.60	770	1.69	0	—	[a]2,524	3.34	237,500	1.62
October	241,294	1.68	1,110	2.37	5,116	2.96	—	—	247,520	1.71
November	245,795	2.25	982	2.85	5,031	2.59	—	—	251,807	2.26
December	263,681	3.00	96	3.30	5,164	2.51	[a]2,425	3.57	271,366	3.00
Total	2,883,277	1.96	13,862	2.25	35,325	2.70	4,949	3.45	2,937,413	1.97
1997										
January	264,919	2.93	1,375	3.08	7,560	2.78	[a]2,417	3.68	276,271	2.93
February	233,569	2.49	2,248	2.44	7,667	3.00	—	—	243,484	2.51
March	254,416	2.10	2,737	1.84	2,530	2.98	—	—	259,683	2.11
April	232,114	1.72	189	1.92	2,557	2.23	—	—	234,860	1.72
May	232,065	1.82	2,382	2.03	2,552	2.20	[b]2,455	2.59	239,455	1.83
June	228,505	1.82	1,694	2.21	5,059	2.48	—	—	235,258	1.83
July	225,528	1.86	1,088	1.98	5,026	2.48	—	—	231,642	1.87
August	241,036	1.86	6	2.35	7,535	2.43	—	—	248,578	1.88
September	237,347	1.93	29	2.47	5,030	2.41	[b]2,337	2.88	244,743	1.95
October	240,450	NA	[R]965	NA	5,050	NA	—	—	[R]246,466	NA
November	[R]253,196	NA	[R]1,781	NA	7,542	NA	[b]4,893	NA	[R]267,412	NA
December	[R]260,094	NA	[R]1,810	NA	7,567	NA	—	—	[R]269,471	NA
Total	[R]2,903,241	NA	[R]16,304	NA	65,675	NA	12,103	—	[R]2,997,323	NA
1998										
January	[E]262,399	NA	[E]1,519	NA	10,105	NA	[b]1,145	NA	[E]275,168	NA

[a] Received from the United Arab Emirates.
[b] Received from Australia.
[R] = Revised Data.
[E] = Estimated Data.
NA = Not Available.
— = Not Applicable.

Sources: 1991-1994: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." January 1995 through the current month (except estimates): Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports.* Estimated pipeline data (shown with an "E") are taken from data from the National Energy Board of Canada plus EIA estimates. LNG data: Industry reports.

Table 6. U.S. Natural Gas Exports, by Country, 1992-1998

(Volumes in Million Cubic Feet, Prices in Dollars per Thousand Cubic Feet)

Year and Month	Pipeline				LNG		Total	
	Canada		Mexico		Japan			
	Volume	Average Price	Volume	Average Price	Volume	Average Price	Volume	Average Price
1992 Total	67,777	1.83	95,973	1.90	52,532	3.43	216,282	2.25
1993 Total	44,518	2.14	39,676	2.02	55,989	3.34	140,183	2.59
1994 Total	52,556	2.42	46,500	1.68	62,682	3.18	161,738	2.50
1995 Total	27,554	1.96	61,283	1.50	65,283	3.41	154,119	2.39
1996								
January	7,044	3.13	1,607	1.98	5,534	3.38	14,186	3.10
February	5,207	2.71	2,000	1.82	5,621	3.35	12,828	2.85
March	6,616	2.79	2,860	1.81	5,642	3.55	15,118	2.88
April	2,430	2.21	1,924	1.69	5,654	3.57	10,008	2.88
May	2,809	2.15	1,899	1.84	3,750	3.61	8,458	2.73
June	3,001	2.25	3,486	2.16	5,651	3.65	12,138	2.87
July	3,777	2.45	3,062	2.24	7,546	3.66	14,385	3.04
August	2,197	2.30	9,176	2.11	5,663	3.67	17,036	2.65
September	2,514	1.94	2,389	1.73	5,663	3.73	10,566	2.85
October	4,311	1.97	1,990	1.85	5,589	3.84	11,889	2.83
November	6,776	2.77	1,533	2.56	5,670	4.01	13,979	3.25
December	5,222	3.67	1,914	3.72	5,665	3.73	12,801	3.70
Total	51,905	2.67	33,840	2.11	67,648	3.65	153,393	2.97
1997								
January	4,193	4.08	2,220	4.07	5,604	4.25	12,017	4.16
February	5,169	3.02	1,666	2.32	5,596	4.29	12,431	3.50
March	9,117	2.06	1,493	1.55	5,675	4.22	16,285	2.76
April	5,167	1.78	3,046	1.83	5,660	4.06	13,873	2.72
May	4,108	2.09	2,177	1.96	3,812	3.98	10,097	2.77
June	3,162	2.28	2,579	2.14	3,786	4.22	9,527	3.01
July	3,257	2.14	3,122	2.17	3,756	3.66	10,135	2.71
August	3,820	2.16	6,282	2.37	7,532	3.62	17,634	2.85
September	3,128	2.37	6,070	2.60	3,767	3.72	12,965	2.87
October	R2,450	NA	R4,182	NA	5,675	NA	R12,307	NA
November	R5,597	NA	R1,782	NA	5,691	NA	R13,070	NA
December	R7,318	NA	R3,650	NA	5,631	NA	R16,599	NA
Total	R56,486	NA	R38,269	NA	62,187	NA	R156,942	NA
1998								
January	E5,122	NA	E3,205	NA	7,446	NA	E15,773	NA

R = Revised Data.
E = Estimated Data.
NA = Not Available.

Sources: 1991-1994: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." January 1995 through the current month (except estimates): Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports.* Estimated pipeline data (shown with an "E") are taken from data from the National Energy Board of Canada plus EIA estimates. LNG data: Industry reports.

Table 7. Marketed Production of Natural Gas, by State, 1991-1997

(Million Cubic Feet)

Year and Month	Alabama[b]	Alaska	Arizona	California	Colorado	Florida	Kansas
1991 Total	170,847	437,822	1,225	378,384	285,961	4,884	628,459
1992 Total	355,099	443,597	771	365,632	323,041	6,657	658,007
1993 Total	388,024	430,350	597	315,851	400,985	7,085	686,347
1994 Total	515,272	555,402	752	309,427	453,207	7,486	712,730
1995							
January	43,456	43,391	43	24,674	47,253	559	64,211
February	39,652	38,966	40	22,028	41,958	570	60,635
March	43,734	43,037	43	23,829	45,291	598	59,382
April	42,727	39,714	42	22,819	45,021	578	59,555
May	44,169	39,308	44	23,055	45,187	604	61,639
June	42,737	35,781	40	22,145	42,589	535	58,686
July	45,521	36,246	50	22,545	43,042	537	59,830
August	45,244	35,724	58	22,584	43,105	502	58,451
September	37,523	36,488	53	22,276	41,295	508	53,756
October	45,123	39,695	52	24,100	45,563	475	58,743
November	44,954	39,324	48	24,188	45,440	497	60,691
December	44,820	41,874	44	25,312	37,338	502	65,856
Total	519,661	469,550	558	279,555	523,084	6,463	721,436
1996							
January	45,653	44,655	41	20,714	48,619	518	62,976
February	42,668	40,433	42	22,910	45,504	493	62,683
March	45,334	43,738	45	24,686	47,843	460	63,027
April	43,868	39,694	36	23,988	45,293	456	60,858
May	45,160	36,348	39	24,091	46,893	483	62,194
June	43,319	37,334	45	23,281	45,212	503	56,318
July	43,257	37,272	30	24,495	45,570	500	57,095
August	43,873	37,239	43	24,547	51,269	540	55,144
September	42,834	38,039	31	23,826	45,437	537	55,563
October	42,200	41,204	34	24,261	50,245	468	57,589
November	45,395	40,706	37	24,493	49,824	517	58,460
December	47,278	44,166	40	25,203	50,363	531	60,890
Total	530,841	480,828	463	286,494	572,071	6,006	712,796
1997							
January	32,136	45,409	46	24,427	47,843	525	60,197
February	29,307	40,017	41	23,877	47,967	510	54,234
March	32,291	43,559	42	23,879	52,372	607	60,099
April	32,077	39,267	39	23,223	48,571	552	57,085
May	31,326	35,821	36	23,690	48,444	538	61,661
June	30,137	37,634	28	23,507	44,744	448	57,731
July	31,331	35,680	31	23,981	50,319	512	56,193
August	30,914	36,425	30	23,831	52,235	503	[E]54,372
September	33,496	34,854	29	[R]23,792	50,425	[E]483	[E]51,771
October	34,689	39,929	34	[R]24,490	51,450	[E]496	[E]56,404
November	[E]35,446	41,052	57	27,505	45,507	437	[E]59,297
1997 YTD	[E]353,149	429,647	413	266,202	539,878	[E]5,610	[E]629,046
1996 YTD	483,563	436,661	424	261,291	521,709	5,474	651,905
1995 YTD	474,840	427,676	514	254,242	485,745	5,960	655,580

See footnotes at end of table.

Table 7. Marketed Production of Natural Gas, by State, 1991-1997

(Million Cubic Feet) — Continued

Year and Month	Louisiana[c]	Michigan	Mississippi	Montana	New Mexico	North Dakota	Oklahoma
1991 Total	5,034,361	195,749	108,031	51,999	1,038,284	53,479	2,153,852
1992 Total	4,914,300	194,815	91,697	53,867	1,268,863	54,883	2,017,356
1993 Total	4,991,138	204,635	80,695	54,528	1,409,429	59,851	2,049,942
1994 Total	5,169,705	222,657	63,448	50,416	1,557,689	57,805	1,934,864
1995							
January	437,237	22,536	7,664	4,919	134,508	4,284	160,707
February	386,483	7,882	6,874	4,278	125,334	3,933	143,517
March	417,303	31,418	7,651	4,716	136,983	4,410	154,640
April	411,156	17,507	7,408	4,381	131,657	4,111	148,305
May	432,964	19,427	8,138	4,153	137,827	4,313	149,369
June	412,412	25,052	7,836	3,420	130,688	4,186	143,346
July	432,943	23,349	7,959	3,493	132,372	3,615	145,565
August	420,784	19,129	8,685	3,570	138,073	4,128	145,609
September	422,232	21,698	8,783	3,734	134,030	4,129	143,565
October	401,813	19,548	8,429	4,345	139,330	4,239	156,378
November	452,671	15,086	7,874	4,566	140,166	4,019	156,667
December	480,368	15,569	8,233	4,690	144,869	4,101	164,066
Total	5,108,366	238,203	95,533	50,264	1,625,837	49,468	1,811,734
1996							
January	437,274	21,912	8,089	4,503	135,594	4,276	143,693
February	412,611	18,686	7,386	4,266	126,370	3,880	139,115
March	446,371	11,208	8,385	4,443	138,091	4,164	131,701
April	436,014	32,072	8,225	4,098	132,572	4,122	147,949
May	451,148	18,021	9,026	4,244	138,946	4,273	149,425
June	434,668	23,572	8,983	3,496	131,778	3,990	143,675
July	449,052	27,119	9,335	3,603	125,193	4,047	146,451
August	449,461	23,261	9,193	4,050	126,967	4,096	148,463
September	431,768	20,208	8,641	4,172	122,040	4,185	143,302
October	421,252	20,374	8,996	4,668	123,570	4,246	150,322
November	427,566	16,081	8,487	4,521	124,377	4,216	146,828
December	443,563	13,227	8,518	4,933	128,590	4,178	143,965
Total	5,240,747	245,740	103,263	50,996	1,554,087	49,674	1,734,887
1997							
January	[E]466,044	35,849	8,089	4,638	125,382	4,035	144,608
February	[E]425,451	17,314	7,807	4,380	125,445	3,921	134,742
March	[E]470,994	25,435	8,470	4,608	124,026	4,313	146,588
April	[E]458,943	13,281	8,120	4,320	123,657	4,176	136,080
May	[E]469,736	40,848	8,611	4,166	122,869	4,542	141,818
June	[E]453,645	19,934	8,893	3,792	123,509	4,341	137,044
July	[E]468,677	41,068	8,636	4,080	123,507	4,420	143,141
August	[E]469,613	19,081	9,626	4,172	123,966	4,454	146,381
September	449,866	[E]19,546	9,162	[E]4,348	124,586	4,276	141,645
October	438,579	[R]20,966	10,084	[E]4,959	124,710	4,507	148,583
November	443,300	26,661	[E]9,453	[E]4,994	[E]125,632	4,434	146,638
1997 YTD	[E]5,014,848	[E]279,981	[E]96,951	[E]48,458	[E]1,367,292	47,419	1,567,268
1996 YTD	4,797,184	232,514	94,745	46,063	1,425,497	45,496	1,590,922
1995 YTD	4,627,998	222,634	87,300	45,574	1,480,968	45,367	1,647,668

See footnotes at end of table.

Table 7. Marketed Production of Natural Gas, by State, 1991-1997

(Million Cubic Feet) — Continued

Year and Month	Oregon	Texas[c]	Utah	Wyoming	Other[a] States	U.S. Total
1991 Total	2,741	6,280,654	144,817	776,528	784,362	18,532,439
1992 Total	2,580	6,145,862	171,293	842,576	800,913	18,711,808
1993 Total	4,003	6,249,624	225,401	634,957	788,472	18,981,915
1994 Total	3,221	6,353,844	270,858	696,018	774,724	19,709,525
1995						
January	279	528,857	22,354	62,919	66,793	1,676,643
February	214	479,553	21,686	50,369	61,412	1,495,384
March	208	538,515	25,813	57,602	64,520	1,659,694
April	150	523,631	24,529	59,544	61,326	1,604,162
May	137	539,311	22,498	54,039	62,505	1,648,688
June	135	526,759	15,626	51,792	63,229	1,586,994
July	150	548,617	17,120	55,403	61,116	1,639,474
August	139	545,415	17,676	57,125	62,212	1,628,213
September	128	520,687	18,447	51,741	59,787	1,580,857
October	128	524,049	16,987	57,494	63,766	1,610,256
November	126	522,744	18,062	56,956	62,910	1,656,989
December	130	531,909	20,493	58,792	70,151	1,719,118
Total	1,923	6,330,048	241,290	673,775	759,728	19,506,474
1996						
January	120	545,658	19,998	58,691	69,638	1,672,623
February	75	512,557	18,027	56,037	66,726	1,580,472
March	105	552,700	21,650	57,270	72,373	1,673,596
April	121	529,015	20,864	54,662	65,643	1,649,552
May	140	547,843	21,035	52,805	67,061	1,679,176
June	132	533,168	20,759	59,346	64,752	1,634,329
July	146	557,986	20,573	55,519	64,500	1,671,743
August	117	550,499	21,137	54,567	66,523	1,670,989
September	132	529,524	21,589	51,949	65,361	1,609,140
October	133	543,264	22,152	53,649	69,163	1,637,792
November	113	517,147	21,606	53,990	70,997	1,615,362
December	102	529,659	21,376	57,551	71,875	1,656,019
Total	1,439	6,449,022	250,767	666,036	814,612	19,750,793
1997						
January	105	560,683	21,782	53,272	[E]69,157	[E]1,704,228
February	98	509,089	19,115	45,143	[E]64,219	[E]1,552,675
March	101	560,042	21,912	62,872	[E]68,518	[E]1,710,728
April	102	531,761	19,570	60,661	[E]64,329	[E]1,625,816
May	102	549,243	22,053	62,147	[E]64,899	[E]1,692,550
June	97	527,306	19,815	55,384	[E]64,227	[E]1,612,216
July	98	533,930	21,711	60,873	[E]64,033	[E]1,672,222
August	99	539,321	[R]21,024	[E]62,134	[E]65,381	[RE]1,663,563
September	86	520,843	[R]22,007	60,378	[E]63,629	[RE]1,615,223
October	97	535,219	[R]23,006	66,373	[E]67,561	[RE]1,652,136
November	126	521,531	[E]22,945	63,949	[E]67,587	[E]1,646,552
1997 YTD	1,113	5,888,968	[E]234,938	[E]653,186	[E]723,542	[E]18,147,909
1996 YTD	1,336	5,919,363	229,391	608,486	742,737	18,094,773
1995 YTD	1,793	5,798,139	220,797	614,983	689,577	17,787,356

[a] Includes Arkansas, Illinois, Indiana, Kentucky, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Pennsylvania, South Dakota, Tennessee, Virginia and West Virginia. The 1997 monthly values for these States are estimated.

[b] The 1992, 1993, 1994, 1995, and 1996 monthly and annual values include Federal Offshore production.

[c] Monthly Federal offshore production volumes are included.

[R] = Revised Data.

[E] = Estimated Data.

[RE] = Revised Estimated Data.

Notes: Data for 1991 through 1996 are final. All other data are preliminary unless otherwise indicated. Totals may not equal sum of components because of independent rounding. See Appendix A, Explanatory Notes 1 and 3 for discussion of computation procedures and revision policy.

Sources: 1991-1996: Energy Information Administration (EIA), *Natural Gas Annual 1996*.1997 through current month: Form EIA-895, "Monthly Quantity of Natural Gas Report," Minerals Management Service reports, and EIA computations.

Table 8. Gross Withdrawals and Marketed Production of Natural Gas by State, November 1997

(Million Cubic Feet)

State	Gross Withdrawals			Repressuring	Nonhydrocarbon Gases Removed[a]	Vented and Flared	Marketed Production
	From Gas Wells	From Oil Wells	Total				
Alabama	[E]38,648	[E]967	[E]39,615	[E]1,487	[E]2,567	[E]115	[E]35,446
Alaska	16,543	269,413	285,955	244,286	0	617	41,052
Arizona	53	4	57	0	0	0	57
California	7,108	26,684	33,792	6,071	145	70	27,505
Colorado	39,271	7,060	46,331	712	0	112	45,507
Florida	0	494	494	0	57	0	437
Kansas	[E]52,323	[E]7,135	[E]59,458	[E]101	0	[E]59	[E]59,297
Louisiana	390,101	58,643	448,745	3,519	0	1,925	443,300
Michigan	21,730	5,432	27,162	207	0	294	26,661
Mississippi	[E]10,455	[E]650	[E]11,105	[E]691	[E]722	[E]240	[E]9,453
Montana	[E]4,434	[E]603	[E]5,038	[E]6	0	[E]38	[E]4,994
New Mexico	[E]118,588	[E]20,557	[E]139,145	[E]847	[E]12,440	[E]226	[E]125,632
North Dakota	1,311	3,469	4,780	0	28	319	4,434
Oklahoma	129,299	17,339	146,638	0	0	0	146,638
Oregon	167	0	167	4	37	0	126
Texas	462,421	111,892	574,313	37,166	13,200	2,416	521,531
Utah	[E]20,217	[E]3,995	[E]24,212	[E]75	0	[E]1,192	[E]22,945
Wyoming	98,220	5,537	103,757	12,571	13,609	13,627	63,949
Other States	[E]63,865	[E]4,599	[E]68,465	[E]195	[E]0	[E]682	[E]67,587
Total	[E]1,474,755	[E]544,474	[E]2,019,229	[E]307,940	[E]42,803	[E]21,933	[E]1,646,552

[a] See Appendix A, Explanatory Note 1, for a discussion of data on Nonhydrocarbon Gases Removed.

[E] = Estimated Data.

Notes: All monthly data are considered preliminary until publication of the *Natural Gas Annual* for that year. Totals may not equal sum of components because of independent rounding. See Appendix A, Explanatory Notes 1 and 3 for discussion of computation procedures and revision policy.

Source: Form EIA-895, "Monthly Quantity of Natural Gas Report."

Table 9. Underground Natural Gas Storage - All Operators, 1992-1998

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Underground Storage at End of Period			Change In Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total[b]	Volume	Percent	Injections	Withdrawals	Net Withdrawals[c]
1992 Total[a]	4,044	2,597	6,641	-227	-8.0	2,555	2,724	168
1993 Total[a]	4,327	2,322	6,649	-275	-10.6	2,760	2,717	-43
1994 Total[a]	4,360	2,606	6,966	284	12.2	2,796	2,508	-288
1995 Total[a]	4,349	2,153	6,503	-453	3.1	2,566	2,974	408
1996								
January	4,354	1,462	5,817	-583	-28.5	49	749	700
February	4,349	1,021	5,369	-521	-33.8	97	544	447
March	4,290	758	5,048	-574	-43.1	80	403	323
April	4,312	854	5,166	-525	-38.1	227	112	-115
May	4,332	1,161	5,493	-507	-30.4	373	45	-328
June	4,341	1,529	5,870	-485	-24.1	410	35	-375
July	4,336	1,898	6,234	-404	-17.5	418	49	-370
August	4,332	2,245	6,577	-250	-10.0	400	54	-346
September	4,338	2,605	6,943	-197	-7.0	398	32	-366
October	4,335	2,810	7,145	-186	-6.2	276	73	-203
November	4,339	2,549	6,889	-179	-6.6	90	354	264
December	4,341	2,173	6,513	19	0.9	86	461	374
Total	—	—	—	—	—	2,906	2,911	6
1997								
January	4,348	1,496	5,844	34	2.3	69	752	684
February	4,342	1,140	5,482	120	11.7	55	413	358
March	4,346	991	5,337	233	30.7	131	285	155
April	4,342	1,051	5,393	197	23.1	205	146	-58
May	4,343	1,362	5,705	201	17.3	362	41	-321
June	4,357	1,730	6,087	201	13.2	405	41	-364
July	4,356	2,014	6,369	116	6.1	359	78	-281
August	4,357	2,336	6,693	92	4.1	378	56	-322
September	4,360	2,672	7,032	67	2.6	380	44	-336
October	4,358	2,886	7,244	75	2.7	295	84	-211
November	4,360	2,698	7,058	149	5.9	113	302	189
December	4,350	2,170	6,520	-2	-0.1	45	579	533
Total	—	—	—	—	—	2,796	2,823	27
1998								
January	[R]4,344	[R]1,714	[R]6,058	[R]218	[R]14.6	69	531	[R]462
February(STIFS)	[RE]4,344	[RE]1,394	[RE]5,738	[RE]254	[RE]22.3	NA	NA	[RE]320
March(STIFS)	[E]4,344	[E]1,060	[E]5,404	[E]69	[E]7.0	NA	NA	[E]334

[a] Total as of December 31.

[b] Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1991 - 7,993; 1992 - 7,932; 1993 - 7,989; 1994 - 8,043; 1995 - 7,927; and 1996 - 8,159.

[c] Negative numbers indicate the volume of injections in excess of withdrawals. Positive numbers indicate the volume of withdrawals in excess of injections.

[R] = Revised Data.

[E] = Estimated Data.

[RE] = Revised Estimated Data.

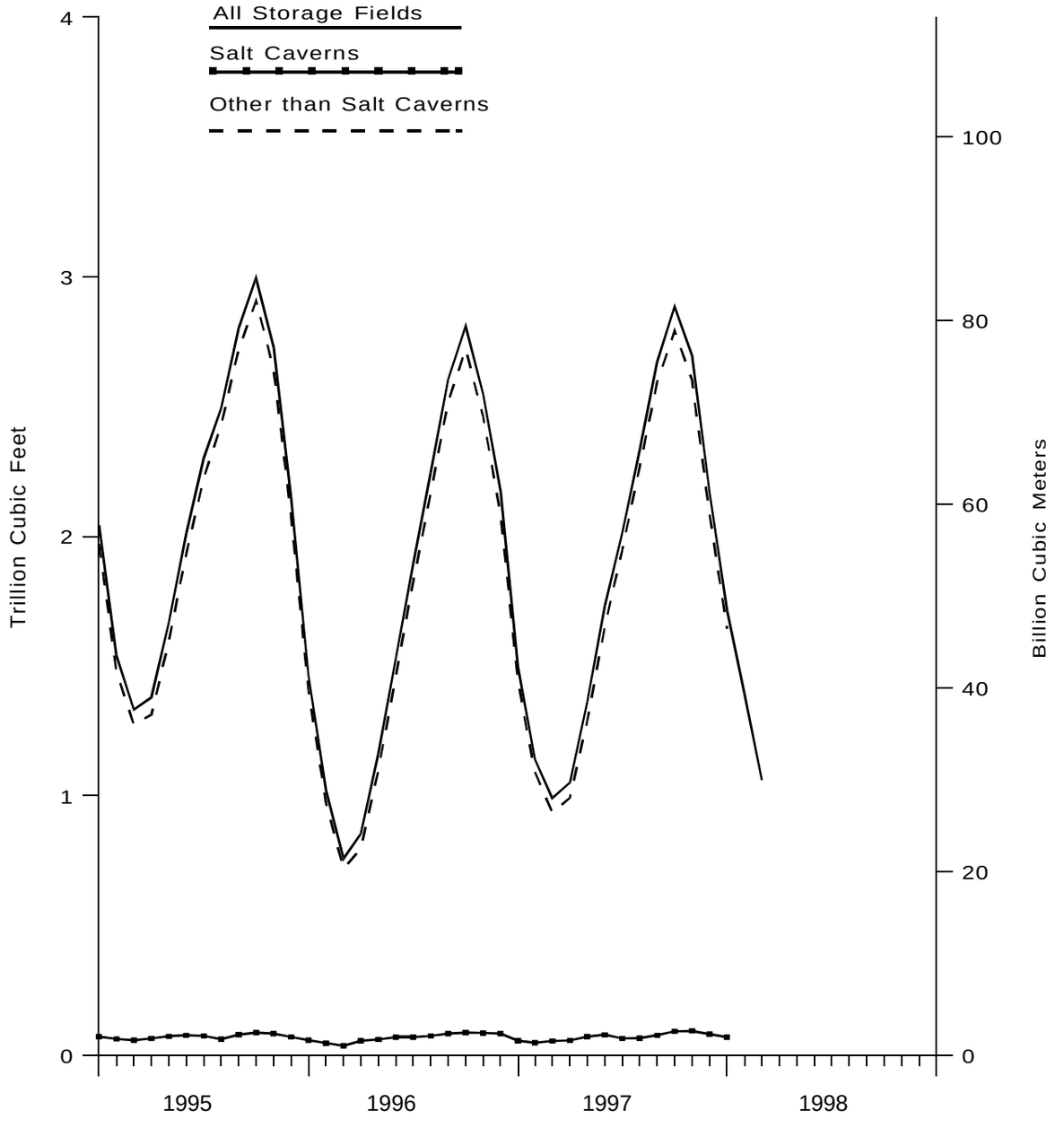
NA = Not Available.

— = Not Applicable.

Notes: Data for 1992 through 1996 are final. All other data are preliminary unless otherwise noted. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of revision policy. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia.In January 1995, 2 billion cubic feet was added to base gas for two new respondents. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and STIFS.

Figure 5. Working Gas in Underground Natural Gas Storage in the United States, 1995-1998



Sources: Energy Information Administration, Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 10. Underground Natural Gas Storage - by Season, 1995-1998

(Volumes in Billion Cubic Feet)

Year, Season and Month	Natural Gas in Underground Storage at End of Period			Change In Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net Withdrawals[a]
October 1995	4,338	2,996	7,334	--	--	--	--	--
1995-96 Heating Season								
November	4,342	2,728	7,070	-249	-8.4	96	367	272
December	4,349	2,153	6,503	-453	-17.4	53	635	582
January	4,354	1,462	5,817	-583	-28.5	49	749	700
February	4,349	1,021	5,369	-521	-33.8	97	544	447
March	4,290	758	5,048	-574	-43.1	80	403	323
Total	--	--	--	--	--	375	2,698	2,324
1996 Refill Season								
April	4,312	854	5,166	-525	-38.1	227	112	-115
May	4,332	1,161	5,493	-507	-30.4	373	45	-328
June	4,341	1,529	5,870	-485	-24.1	410	35	-375
July	4,336	1,898	6,234	-404	-17.5	418	49	-370
August	4,332	2,245	6,577	-250	-10.0	400	54	-346
September	4,338	2,605	6,943	-197	-7.0	398	32	-366
October	4,335	2,810	7,145	-186	-6.2	276	73	-203
Total	--	--	--	--	--	2,502	400	-2,103
1996-97 Heating Season								
November	4,339	2,549	6,889	-179	-6.6	90	354	264
December	4,341	2,173	6,513	19	0.9	86	461	374
January	4,348	1,496	5,844	34	2.3	69	752	684
February	4,342	1,140	5,482	120	11.7	55	413	358
March	4,346	991	5,337	233	30.7	131	285	155
Total	--	--	--	--	--	431	2,265	1,835
1997 Refill Season								
April	4,342	1,051	5,393	197	23.1	205	146	-58
May	4,343	1,362	5,705	201	17.3	362	41	-321
June	4,357	1,730	6,087	201	13.2	405	41	-364
July	4,356	2,014	6,369	116	6.1	359	78	-281
August	4,357	2,336	6,693	92	4.1	378	56	-322
September	4,360	2,672	7,032	67	2.6	380	44	-336
October	4,358	2,886	7,244	75	2.7	295	84	-211
Total	--	--	--	--	--	2,384	490	-1,893
1997-98 Heating Season								
November	4,360	2,698	7,058	149	5.9	113	302	189
December	4,350	2,170	6,520	-2	-0.1	45	579	533
January	R4,344	R1,714	R6,058	R218	R14.6	69	531	R462
February(STIFS)	RE4,344	RE1,394	RE5,738	RE254	RE22.3	NA	NA	RE320
March(STIFS)	E4,344	E1,060	E5,404	E69	E7.0	NA	NA	E334

[a] Negative numbers indicate the volume of injections in excess of withdrawals. Positive numbers indicate the volume of withdrawals in excess of injections.

R = Revised Data.

E = Estimated Data.

RE = Revised Estimated Data.

NA = Not Available.

Notes: Data for 1995 and 1996 are final. All other data are preliminary unless otherwise noted. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of revision policy. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia.In January 1995, 2 billion cubic feet was added to base gas for two new respondents. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and STIFS.

Table 11. Underground Natural Gas Storage - Salt Cavern Storage Fields, 1996-1998

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Salt Cavern Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total[a]	Volume	Percent	Injections	Withdrawals	Net Withdrawals
1996								
January	63	59	122	-14	-19.3	23	41	17
February	63	48	111	-17	-26.2	23	33	10
March	63	38	101	-21	-35.2	21	32	11
April	63	57	120	-9	-13.7	30	10	-20
May	63	62	126	-11	-15.1	19	13	-6
June	63	71	135	-7	-8.9	21	12	-9
July	60	71	131	-5	-6.7	20	14	-6
August	60	76	136	13	20.5	21	16	-5
September	60	85	145	4	5.0	23	13	-9
October	60	88	148	0	0.4	17	14	-3
November	64	87	151	3	4.0	16	20	5
December	64	85	149	14	18.8	25	28	2
Total	—	—	—	—	—	258	246	-13
1997								
January	65	57	122	-2	-3.1	21	50	30
February	59	49	109	2	4.0	15	23	8
March	65	56	121	18	47.3	22	16	-6
April	65	58	123	1	1.8	21	19	-3
May	65	73	138	11	17.3	27	13	-14
June	66	80	145	8	11.7	22	15	-7
July	65	66	131	-5	-7.5	15	29	14
August	65	67	132	-9	-12.4	23	22	-1
September	65	78	143	-7	-8.7	26	14	-12
October	66	93	159	5	5.6	30	14	-16
November	67	95	162	8	9.1	25	23	-2
December	67	82	150	-3	-3.1	18	31	12
Total	—	—	—	—	—	266	270	4
1998								
January	66	71	137	14	24.9	17	29	11

[a] Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1995 - 5,314; and 1996 - 7,952.

— = Not Applicable.

Notes: Data for 1995 and 1996 are final. All other data are preliminary unless otherwise noted. See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of the reporting of underground storage information. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 12. Underground Natural Gas Storage - Storage Fields Other than Salt Caverns, 1996-1998

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Non-Salt Cavern Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total[a]	Volume	Percent	Injections	Withdrawals	Net Withdrawals
1996								
January	4,291	1,404	5,695	-569	-28.8	26	708	682
February	4,286	973	5,259	-504	-34.1	73	510	437
March	4,228	720	4,948	-553	-43.4	59	371	312
April	4,249	797	5,046	-516	-39.3	197	102	-95
May	4,268	1,099	5,367	-496	-31.1	354	32	-322
June	4,277	1,458	5,735	-478	-24.7	390	23	-366
July	4,276	1,827	6,103	-399	-17.9	398	34	-363
August	4,272	2,169	6,441	-263	-10.8	380	39	-341
September	4,277	2,520	6,797	-201	-7.4	376	19	-357
October	4,275	2,722	6,997	-186	-6.4	259	59	-200
November	4,275	2,462	6,737	-183	-6.9	75	333	259
December	4,277	2,087	6,364	6	0.3	61	433	372
Total	—	—	—	—	—	2,647	2,665	18
1997								
January	4,283	1,439	5,722	36	2.5	48	702	654
February	4,283	1,091	5,374	118	12.1	40	390	350
March	4,281	935	5,216	215	29.9	109	270	161
April	4,277	993	5,270	196	24.6	184	128	-56
May	4,278	1,289	5,567	190	17.3	335	28	-307
June	4,291	1,651	5,942	193	13.2	383	26	-357
July	4,290	1,948	6,238	121	6.6	344	49	-295
August	4,291	2,270	6,561	101	4.7	355	34	-321
September	4,295	2,595	6,890	75	3.0	354	30	-324
October	4,292	2,793	7,085	70	2.6	265	70	-195
November	4,293	2,603	6,897	141	5.7	88	279	191
December	4,283	2,088	6,371	0	0.0	27	548	521
Total	—	—	—	—	—	2,530	2,553	23
1998								
January	4,278	1,643	5,921	204	14.2	52	502	451

[a] Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1995 - 5,314; and 1996 - 7,952.

— = Not Applicable.

Notes: Data for 1995 and 1996 are final. All other data are preliminary unless otherwise noted. See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of the reporting of underground storage information. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998

(Volumes in Million Cubic Feet)

State	1998	1997					
	January	Total	December	November	October	September	August
Alabama	396	-162	243	243	-251	-262	-286
Arkansas	1,057	251	1,526	651	271	-1,048	-1,234
California	29,805	14,425	58,445	2,749	-11,834	-6,817	-8,032
Colorado	3,510	384	5,111	2,545	458	-5,141	-4,488
Illinois	58,036	-11,140	45,338	2,735	-28,914	-36,161	-35,848
Indiana	4,144	365	4,036	-925	-3,135	-4,603	-3,757
Iowa	18,905	-6,207	16,932	554	-8,358	-12,762	-10,938
Kansas	15,103	-12,416	12,485	8,499	-7,912	-13,678	-11,439
Kentucky	9,559	3,182	10,772	4,043	-2,925	-7,983	-6,520
Louisiana	21,574	-7,721	43,862	21,196	-23,999	-29,222	-15,259
Maryland	3,236	-148	1,312	53	-2,283	-2,766	-2,292
Michigan	84,170	-702	77,495	53,120	-32,347	-64,478	-72,202
Minnesota	444	-303	5	4	0	-130	-137
Mississippi	7,431	3,703	8,471	1,122	-2,145	-5,204	-3,115
Missouri	458	-453	228	-207	-215	-240	-379
Montana	4,421	11,955	3,168	2,753	1,015	-1,490	-2,339
Nebraska	376	-1,545	944	126	-66	-1,091	-964
New Mexico	-412	2,065	2,500	25	-1,305	-853	-328
New York	11,582	-131	10,285	4,803	-2,343	-6,626	-11,544
Ohio	34,743	-6,964	40,390	15,498	-8,799	-23,418	-32,053
Oklahoma	21,199	-10,892	24,727	13,548	-19,571	-14,433	-8,317
Oregon	540	-1,019	1,036	-250	-93	-391	-1,123
Pennsylvania	55,738	28,252	53,756	25,976	-16,030	-48,951	-44,991
Texas	33,916	11,896	54,705	19,105	-30,561	-21,242	-13,220
Utah	7,613	-7,571	13,169	2,721	-1,301	-3,235	-5,284
Washington	-58	-904	3,177	90	707	-2,267	990
West Virginia	30,647	17,744	36,345	6,670	-8,103	-18,997	-24,020
Wyoming	3,990	963	3,015	1,918	-577	-2,424	-2,712
AGA Regions							
Producing	99,869	-13,114	148,276	64,145	-85,222	-85,680	-52,913
Eastern Consuming	311,989	22,091	298,078	112,688	-113,768	-228,337	-245,796
Western Consuming	50,266	17,929	87,127	12,530	-11,625	-21,894	-23,125
Total	462,123	26,906	533,481	189,363	-210,615	-335,912	-321,834

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998

(Volumes in Million Cubic Feet) — Continued

State	1997						
	July	June	May	April	March	February	January
Alabama	-43	-93	-271	-130	-25	184	531
Arkansas	-1,472	-1,340	-608	178	342	1,006	1,978
California	-11,406	-23,191	-24,048	-19,220	-441	19,742	38,477
Colorado	-5,540	-5,257	-5,328	5,569	2,069	4,862	5,523
Illinois	-32,648	-28,038	-23,880	-546	23,189	39,774	63,858
Indiana	-3,309	-1,914	-110	1,444	2,498	2,866	7,272
Iowa	-8,777	-8,361	-3,473	1,627	2,953	8,469	15,926
Kansas	-3,703	-12,195	-9,699	-1,605	4,096	9,102	13,633
Kentucky	-7,391	-8,991	-7,821	-343	4,166	8,068	18,108
Louisiana	-11,713	-19,702	-19,500	-3,923	-18,817	21,080	48,276
Maryland	-1,497	-1,657	-1,590	133	1,903	2,662	5,873
Michigan	-74,634	-72,604	-46,126	-13,752	53,314	71,108	120,403
Minnesota	-321	-312	-273	-31	188	117	588
Mississippi	709	-3,812	-5,552	442	-2,306	2,924	12,169
Missouri	-433	-112	-1,200	56	1,174	-252	1,126
Montana	-2,710	-1,633	-846	1,810	2,591	3,983	5,651
Nebraska	-75	-797	-708	-43	-241	504	867
New Mexico	587	-534	-1,228	583	501	1,527	591
New York	-11,628	-10,571	-7,770	-1,700	9,210	10,116	17,636
Ohio	-34,093	-37,335	-34,081	-1,385	21,557	28,120	58,636
Oklahoma	-864	-8,028	-18,258	-7,130	-8,092	7,912	27,616
Oregon	-1,240	-1,602	-1,239	543	920	1,078	1,341
Pennsylvania	-41,099	-49,619	-44,272	-3,306	50,263	52,298	94,228
Texas	10,013	-20,500	-27,751	-17,395	-21,183	24,869	55,056
Utah	-8,117	-7,950	-4,255	-2,150	-2,620	2,520	8,931
Washington	-490	-3,766	-5,880	-66	3,217	1,798	1,587
West Virginia	-26,065	-31,691	-23,964	1,715	23,312	28,900	53,643
Wyoming	-3,393	-2,290	-1,119	127	1,082	2,976	4,361
AGA Regions							
Producing	-6,442	-66,111	-82,596	-28,850	-45,460	68,420	159,319
Eastern Consuming	-241,693	-251,783	-195,265	-16,231	193,275	252,817	458,106
Western Consuming	-33,218	-46,001	-42,987	-13,416	7,006	37,076	66,459
Total	-281,353	-363,895	-320,849	-58,498	154,821	358,313	683,884

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998

(Volumes in Million Cubic Feet) — Continued

State	1996						
	Total	December	November	October	September	August	July
Alabama	-1,224	761	129	-117	-440	-395	-205
Arkansas	64	644	562	-603	-1,153	-615	-744
California	51,292	14,985	-2,885	-6,393	-6,822	15,439	7,028
Colorado	-1,004	2,923	92	-87	-3,828	-3,722	-5,347
Illinois	-15,108	35,109	15,523	-28,103	-36,529	-35,172	-35,480
Indiana	-1,801	3,290	-853	-2,715	-3,911	-6,115	-4,278
Iowa	-1,229	18,020	5,502	-10,555	-12,536	-13,166	-12,393
Kansas	12,118	12,290	12,828	-6,005	-8,532	-8,265	-7,537
Kentucky	-7,530	8,039	4,853	-2,826	-8,590	-10,071	-13,358
Louisiana	10,964	32,273	29,327	-15,704	-33,463	-32,218	-29,380
Maryland	24	958	1,424	-1,553	-1,677	-1,845	-1,887
Michigan	-31,671	83,640	61,160	-49,100	-81,220	-82,649	-80,355
Minnesota	-30	218	30	-35	-202	-213	-287
Mississippi	-12,758	4,658	5,707	-3,369	-7,330	-7,868	-8,061
Missouri	-48	76	306	-210	-204	-206	-240
Montana	11,725	5,512	4,760	336	-3,519	-3,501	-3,261
Nebraska	-1,489	1,108	479	600	-785	-1,346	-1,193
New Mexico	5,338	-823	607	482	-1,873	363	811
New York	-13,367	8,151	6,347	-2,750	-7,327	-12,585	-12,964
Ohio	-10,844	35,138	25,728	-13,648	-23,807	-29,581	-36,092
Oklahoma	22,961	20,970	17,468	-10,345	-18,814	-14,973	-8,211
Oregon	783	1,240	552	170	-121	-509	-1,318
Pennsylvania	-59,533	25,003	33,464	-15,621	-37,711	-52,038	-69,480
Texas	63,869	24,153	12,557	-22,072	-34,225	-18,108	-2,670
Utah	12,955	9,164	4,651	1,416	-2,204	-3,884	-6,821
Washington	2,067	1,746	462	1,648	-597	-1,965	-935
West Virginia	-35,844	21,644	19,884	-15,242	-28,009	-19,913	-32,686
Wyoming	5,056	3,529	2,903	-272	-613	-771	-2,160
AGA Regions							
Producing	102,555	94,165	79,056	-57,617	-105,390	-81,685	-55,791
Eastern Consuming	[R]-179,663	240,936	173,946	-141,841	-242,746	-265,082	-300,612
Western Consuming	[R]82,844	39,316	10,566	-3,217	-17,907	874	-13,101
Total	5,735	374,417	263,567	-202,675	-366,042	-345,894	-369,504

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1996-1998

(Volumes in Million Cubic Feet) — Continued

State	1996					
	June	May	April	March	February	January
Alabama	-670	-367	-153	162	17	54
Arkansas	-1,166	-1,302	-44	1,259	1,115	2,112
California	-9,697	-23,523	-11,917	1,459	25,693	47,924
Colorado	-5,035	-2,271	1,268	5,022	1,417	8,564
Illinois	-32,122	-26,711	-3,200	22,829	40,993	67,753
Indiana	-2,398	-178	948	3,532	3,804	7,073
Iowa	-7,677	-1,640	1,980	6,303	8,653	16,282
Kansas	-12,192	-7,892	-5,779	9,984	6,590	26,627
Kentucky	-14,231	-6,224	380	7,911	12,179	14,407
Louisiana	-16,986	-11,703	-2,727	25,245	23,235	43,064
Maryland	-2,621	-2,154	212	1,827	3,086	4,254
Michigan	-78,794	-58,040	-14,063	51,828	83,725	132,197
Minnesota	-294	-366	-90	213	250	748
Mississippi	-6,662	-2,502	-4,083	6,016	3,023	7,713
Missouri	-261	-1,319	296	384	-97	1,428
Montana	-3,577	782	647	3,884	3,443	6,220
Nebraska	-1,924	-1,617	-303	802	754	1,937
New Mexico	48	21	519	2,200	1,614	1,370
New York	-12,079	-13,349	-2,711	8,971	12,756	14,174
Ohio	-37,165	-30,055	-8,729	29,225	33,937	44,205
Oklahoma	-10,949	-19,131	-4,435	14,679	23,470	33,230
Oregon	-1,365	-841	132	651	940	1,252
Pennsylvania	-62,061	-46,338	-22,497	43,459	64,167	80,122
Texas	-13,902	-28,071	-22,764	43,870	49,673	75,427
Utah	-6,742	-5,533	-188	2,388	8,372	12,335
Washington	-3,317	-1,973	-356	540	769	6,047
West Virginia	-29,535	-32,767	-16,242	26,887	30,318	39,816
Wyoming	-1,760	-2,704	-644	1,095	3,044	3,410
AGA Regions						
Producing	-61,809	-70,578	-39,312	103,253	108,720	189,543
Eastern Consuming	-281,537	-220,759	-64,083	204,119	294,292	423,704
Western Consuming	-31,788	-36,431	-11,149	15,252	43,928	86,501
Total	-375,133	-327,768	-114,544	322,623	446,941	699,748

[R] = Revised Data.

Notes: This table contains total net withdrawals for each State with natural gas storage facilities. Positive numbers indicate the volume of withdrawals in excess of injections. Negative values indicate the volume of injections in excess of withdrawals. Data through 1996 are final.All other data are preliminary at this time and are not considered final until publication of the *Natural Gas Annual* for that year. The American Gas Association (AGA) publishes weekly estimates of working gas levels in underground storage by region. AGA defines the Producing Region as Texas, Oklahoma, Kansas, New Mexico, Louisiana, Arkansas, and Mississippi; the Eastern Consuming Region as all States east of the Mississippi River less Mississippi, plus Iowa, Nebraska and Missouri; the Western Consuming Region as all States west of the Mississippi River less the Producing Region and Iowa, Nebraska and Missouri.

Source: Form EIA-191, "Monthly Underground Gas Storage Report."

Table 14. Activities of Underground Natural Gas Storage Operators, by State, January 1998

(Volumes in Million Cubic Feet)

State	Total Storage Capacity	Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity	
		Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals
Alabama	3,280	1,190	773	1,963	185	31.5	26	422
Arkansas	31,871	11,150	4,508	15,658	1,880	71.6	138	1,195
California	469,696	247,389	96,021	343,410	-5,329	-5.3	1,628	31,433
Colorado	99,600	47,413	25,085	72,497	362	1.5	885	4,395
Illinois	898,239	651,403	156,931	808,334	17,933	12.9	1,382	59,418
Indiana	113,210	73,777	26,363	100,140	167	0.6	624	4,768
Iowa	270,200	200,700	24,310	225,010	3,228	15.3	0	18,905
Kansas	298,666	191,876	57,185	249,061	11,813	26.0	3,212	18,315
Kentucky	219,908	109,074	72,029	181,103	5,084	7.6	1,535	11,094
Louisiana	559,473	271,337	120,602	391,939	34,902	40.7	18,799	40,373
Maryland	62,000	46,677	9,840	56,518	2,785	39.5	732	3,968
Michigan	1,052,236	420,341	359,230	779,571	52,404	17.1	1,808	85,978
Minnesota	7,000	4,623	1,928	6,551	446	30.1	0	444
Mississippi	134,012	76,319	34,655	110,974	1,996	6.1	2,348	9,779
Missouri	31,126	21,600	8,988	30,588	1,121	14.2	303	761
Montana	375,010	167,377	41,644	209,021	-10,717	-20.5	289	4,710
Nebraska	39,469	31,507	3,118	34,625	2,036	188.1	328	704
New Mexico	96,600	25,087	5,533	30,620	1,427	34.8	1,378	967
New York	173,979	102,980	45,111	148,091	5,312	13.3	1,187	12,769
Ohio	557,452	352,680	92,312	444,992	27,745	43.0	1,700	36,443
Oklahoma	395,087	233,763	58,185	291,948	14,864	34.3	3,598	24,798
Oregon	11,623	4,896	5,446	10,342	1,820	50.2	0	540
Pennsylvania	680,006	354,901	220,302	575,202	13,735	6.6	10,541	66,279
Texas	678,534	254,407	113,055	367,463	12,701	12.7	10,921	44,838
Utah	121,980	62,100	16,871	78,971	7,493	79.9	0	7,613
Washington	37,300	22,096	10,759	32,856	2,518	30.6	2,714	2,656
West Virginia	484,597	296,487	89,484	385,971	10,847	13.8	2,695	33,342
Wyoming	105,869	60,782	14,212	74,994	-681	-4.6	22	4,012
AGA Regions								
Producing	2,194,242	1,063,939	393,723	1,457,662	79,583	25.3	40,396	140,265
Eastern Consuming	4,585,702	2,663,318	1,108,790	3,772,108	142,582	14.8	22,861	334,850
Western Consuming	1,228,076	616,676	211,966	828,642	-4,089	-1.9	5,538	55,803
Total	8,008,021	4,343,933	1,714,479	6,058,411	218,076	14.6	68,795	530,918

Notes: Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. The American Gas Association (AGA) publishes weekly estimates of working gas levels in underground storage by region. AGA defines the Producing Region as Texas, Oklahoma, Kansas, New Mexico, Louisiana, Arkansas, and Mississippi; the Eastern Consuming Region as all States east of the Mississippi River less Mississippi, plus Iowa, Nebraska and Missouri; the Western Consuming Region as all States west of the Mississippi River less the Producing Region and Iowa, Nebraska and Missouri.

Source: Form EIA-191, "Monthly Underground Gas Storage Report."

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1997

(Million Cubic Feet)

State	1997					
	Total	December	November	October	September	August
Alabama	48,328	7,914	3,963	1,435	1,250	1,238
Alaska	15,284	2,162	1,684	R1,569	743	402
Arizona	31,162	4,780	1,980	1,057	1,127	910
Arkansas	42,472	6,375	4,018	1,346	949	918
California	486,233	69,510	40,537	24,905	21,772	20,951
Colorado	NA	16,540	NA	NA	NA	NA
Connecticut	NA	5,901	3,625	NA	1,001	903
Delaware	8,920	1,206	667	250	183	178
District of Columbia	15,698	2,312	1,414	553	393	372
Florida	14,538	2,038	1,192	755	699	742
Georgia	114,282	19,723	16,465	6,777	3,190	2,944
Hawaii	518	45	R42	39	40	41
Idaho	NA	2,372	1,429	639	NA	294
Illinois	497,370	69,685	56,316	29,486	11,697	10,111
Indiana	NA	NA	17,458	NA	3,491	2,989
Iowa	81,357	12,039	8,592	4,027	1,645	1,472
Kansas	NA	NA	8,812	2,419	1,629	1,616
Kentucky	NA	11,153	8,075	NA	1,448	1,077
Louisiana	NA	8,007	4,321	NA	1,697	1,671
Maine	1,009	142	107	66	30	26
Maryland	77,109	10,927	8,296	3,543	2,067	1,800
Massachusetts	NA	15,274	10,140	4,780	2,555	2,437
Michigan	379,431	49,980	37,898	17,835	8,767	7,264
Minnesota	132,392	17,705	15,376	6,811	2,864	2,556
Mississippi	NA	4,327	2,545	896	NA	NA
Missouri	NA	19,007	12,077	NA	2,625	2,403
Montana	20,995	3,197	2,030	1,230	508	447
Nebraska	47,233	5,790	4,401	1,382	936	937
Nevada	25,154	3,867	1,917	1,019	802	777
New Hampshire	NA	933	616	327	NA	155
New Jersey	212,726	30,622	19,893	8,843	5,309	4,680
New Mexico	36,380	8,162	4,067	1,209	830	843
New York	NA	NA	NA	NA	NA	NA
North Carolina	52,993	9,219	4,884	1,441	935	900
North Dakota	11,900	1,471	1,178	474	229	206
Ohio	354,654	51,089	37,009	19,335	7,228	6,202
Oklahoma	71,745	11,053	6,181	1,966	1,548	1,519
Oregon	33,055	4,834	2,809	1,498	737	670
Pennsylvania	262,306	37,823	26,338	12,987	6,315	4,714
Rhode Island	18,162	2,509	1,464	659	473	443
South Carolina	25,475	4,634	2,399	631	466	444
South Dakota	13,225	1,734	1,329	569	261	233
Tennessee	NA	11,064	R6,385	1,905	1,187	1,080
Texas	211,229	33,619	19,418	8,261	6,416	6,101
Utah	58,099	10,374	6,017	4,299	1,957	1,466
Vermont	2,631	345	214	118	59	52
Virginia	73,716	11,657	7,430	3,007	1,640	1,473
Washington	NA	NA	NA	NA	NA	NA
West Virginia	35,150	5,431	3,949	1,358	784	594
Wisconsin	136,335	19,157	16,222	8,154	2,974	2,550
Wyoming	11,816	1,142	1,175	646	330	252
Total	5,006,173	732,245	R499,601	R235,978	131,837	119,068

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997					
	July	June	May	April	March	February
Alabama	1,392	1,604	2,638	3,180	5,326	9,098
Alaska	463	508	789	1,177	R1,767	R1,618
Arizona	1,019	1,154	1,571	2,259	4,235	5,092
Arkansas	1,028	1,240	2,324	3,293	4,942	7,754
California	26,840	23,572	28,707	39,271	48,377	66,688
Colorado	NA	NA	NA	8,929	NA	NA
Connecticut	949	1,380	2,332	4,378	5,176	6,538
Delaware	194	318	557	942	1,265	1,612
District of Columbia	419	562	944	1,316	2,049	2,655
Florida	785	856	944	1,013	1,279	2,068
Georgia	3,195	3,357	3,834	8,221	9,001	16,024
Hawaii	43	41	42	41	46	49
Idaho	346	433	939	1,464	1,909	2,542
Illinois	10,378	11,617	26,081	41,192	61,416	69,338
Indiana	2,852	4,958	9,482	15,219	20,684	26,294
Iowa	1,593	2,102	3,938	6,971	9,528	11,881
Kansas	1,862	1,652	3,581	6,402	8,769	12,105
Kentucky	1,419	1,572	2,954	4,883	7,293	8,964
Louisiana	1,685	2,050	2,824	3,680	5,619	8,991
Maine	21	34	56	85	142	133
Maryland	1,906	2,677	4,215	6,913	8,998	12,080
Massachusetts	2,831	4,370	6,917	12,122	15,127	17,654
Michigan	4,748	12,010	26,958	38,256	51,299	57,545
Minnesota	2,706	3,499	6,775	11,435	16,959	19,966
Mississippi	NA	920	1,463	1,904	3,038	4,968
Missouri	2,717	3,665	6,474	11,030	15,422	23,426
Montana	411	631	1,143	1,996	2,468	3,038
Nebraska	1,015	1,485	3,177	4,355	6,232	7,829
Nevada	887	981	1,419	2,018	3,172	3,825
New Hampshire	160	263	465	744	913	1,136
New Jersey	5,102	6,457	11,258	18,139	31,984	34,709
New Mexico	815	238	1,952	1,503	3,810	5,630
New York	NA	NA	NA	NA	NA	NA
North Carolina	1,074	1,599	2,991	4,087	5,811	10,002
North Dakota	228	333	730	1,178	1,576	1,984
Ohio	7,533	9,785	21,575	33,023	44,153	52,497
Oklahoma	1,679	2,105	3,857	6,160	9,070	12,687
Oregon	836	1,029	1,920	3,206	4,350	5,308
Pennsylvania	5,153	7,583	15,446	25,130	33,537	41,287
Rhode Island	480	727	1,171	1,994	2,462	2,891
South Carolina	512	701	1,230	1,776	2,592	4,994
South Dakota	248	368	784	1,250	1,625	2,089
Tennessee	1,119	NA	3,019	4,797	NA	12,086
Texas	6,829	7,595	10,420	14,025	22,686	33,154
Utah	1,501	1,601	1,821	4,875	5,945	8,366
Vermont	57	97	189	283	383	416
Virginia	1,576	2,054	4,227	6,662	9,123	11,741
Washington	NA	3,055	5,591	4,586	8,132	9,377
West Virginia	488	961	2,246	3,421	4,318	5,630
Wisconsin	2,878	2,965	7,456	11,112	17,378	19,323
Wyoming	294	395	1,076	1,058	1,544	1,660
Total	130,638	159,944	285,439	433,307	R604,856	R765,275

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997	1996				
	January	Total	December	November	October	September
Alabama	9,290	56,522	6,664	3,461	1,647	1,321
Alaska	2,402	16,179	2,181	1,708	1,238	589
Arizona	5,978	27,709	4,051	2,322	1,082	900
Arkansas	8,285	46,289	6,286	3,768	1,425	1,044
California	75,103	473,310	62,905	43,702	30,462	26,104
Colorado	NA	110,924	15,814	9,571	4,886	2,773
Connecticut	6,255	43,764	5,842	3,522	1,840	992
Delaware	1,549	9,791	1,236	648	291	181
District of Columbia	2,708	17,290	2,406	1,252	578	401
Florida	2,167	16,293	1,583	972	752	690
Georgia	21,550	127,062	18,574	14,651	5,771	3,092
Hawaii	51	540	44	41	39	41
Idaho	2,564	14,941	2,224	1,570	646	364
Illinois	100,053	538,749	80,922	63,715	28,081	13,137
Indiana	32,779	179,939	26,087	18,577	7,846	3,617
Iowa	17,568	88,078	14,138	9,782	3,620	1,954
Kansas	15,803	85,376	14,388	9,447	3,163	1,973
Kentucky	13,942	70,232	10,177	9,022	3,018	1,389
Louisiana	9,736	56,626	6,173	3,511	2,102	1,836
Maine	166	967	120	105	67	28
Maryland	13,687	85,533	11,426	7,828	3,738	2,207
Massachusetts	NA	114,365	13,947	9,943	5,012	2,677
Michigan	66,871	399,522	52,724	38,862	18,528	9,068
Minnesota	25,740	142,319	22,152	14,959	6,705	2,968
Mississippi	5,050	30,157	3,676	1,880	929	804
Missouri	25,499	137,225	20,539	11,687	4,321	2,749
Montana	3,897	22,175	3,286	2,458	1,267	634
Nebraska	9,692	48,989	7,283	4,043	2,173	1,017
Nevada	4,470	22,607	3,386	2,069	894	732
New Hampshire	1,061	7,012	855	667	312	169
New Jersey	35,729	222,619	29,983	18,933	9,917	5,472
New Mexico	7,320	33,689	5,663	3,689	1,330	844
New York	NA	403,264	NA	NA	NA	NA
North Carolina	10,050	58,812	8,607	4,461	1,701	913
North Dakota	2,313	12,591	1,894	1,256	554	256
Ohio	65,225	374,824	52,480	38,565	18,651	7,026
Oklahoma	13,920	76,629	11,298	5,722	2,267	1,679
Oregon	5,857	33,236	5,200	3,164	1,357	821
Pennsylvania	45,992	278,606	36,688	27,037	13,202	5,907
Rhode Island	2,890	18,839	2,350	1,416	738	467
South Carolina	5,097	29,406	4,336	2,168	800	476
South Dakota	2,735	14,085	2,243	1,414	578	316
Tennessee	12,795	70,423	10,177	5,949	1,987	1,190
Texas	42,706	229,318	33,952	17,793	9,479	7,495
Utah	9,876	54,344	8,203	5,749	4,215	2,540
Vermont	419	2,523	302	208	100	56
Virginia	13,126	76,214	10,946	7,388	2,879	1,414
Washington	10,885	62,689	9,804	6,207	2,930	1,572
West Virginia	5,969	37,390	5,166	3,391	1,609	696
Wisconsin	26,165	147,893	21,285	16,724	7,783	3,130
Wyoming	2,243	13,534	1,744	1,334	1,087	368
Total	907,986	5,241,414	737,722	502,981	243,121	137,556

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1996					
	August	July	June	May	April	March
Alabama	1,227	1,295	1,472	2,948	6,321	8,051
Alaska	544	493	647	964	1,424	1,918
Arizona	836	916	1,089	1,328	2,155	3,366
Arkansas	955	930	1,202	1,967	4,846	6,146
California	21,757	18,649	25,996	30,001	36,723	52,226
Colorado	2,505	2,869	4,316	6,901	11,526	14,685
Connecticut	954	1,088	1,274	2,303	4,399	6,245
Delaware	175	196	310	516	1,116	1,504
District of Columbia	380	412	582	807	1,712	2,376
Florida	658	741	786	1,016	1,640	2,058
Georgia	2,972	3,179	3,115	4,272	9,875	17,871
Hawaii	40	42	45	44	49	53
Idaho	277	300	542	976	1,315	1,847
Illinois	9,546	11,346	12,437	27,063	43,288	71,599
Indiana	3,117	3,201	4,513	8,919	16,823	24,978
Iowa	1,610	1,663	2,343	4,187	6,945	11,830
Kansas	1,640	1,836	1,734	3,054	6,313	11,170
Kentucky	1,253	1,108	1,335	2,255	5,565	10,254
Louisiana	1,831	1,820	1,977	2,562	5,158	7,507
Maine	23	25	29	49	81	137
Maryland	2,064	2,139	2,709	4,136	7,257	11,806
Massachusetts	2,463	2,814	3,930	7,569	11,564	16,533
Michigan	7,300	7,657	10,619	24,645	40,288	57,657
Minnesota	2,433	2,583	3,708	7,335	12,254	19,126
Mississippi	771	816	839	1,366	3,174	3,851
Missouri	2,448	2,688	3,404	6,252	13,133	18,852
Montana	431	462	745	1,400	2,028	2,649
Nebraska	932	985	1,475	2,651	4,786	6,609
Nevada	678	779	1,011	1,264	1,884	2,903
New Hampshire	155	159	233	426	698	998
New Jersey	4,715	5,103	6,412	11,915	20,410	31,467
New Mexico	836	1,623	1,701	610	2,586	3,085
New York	NA	10,129	14,186	25,231	41,232	57,763
North Carolina	862	889	1,210	2,131	6,189	7,391
North Dakota	209	212	356	736	1,320	1,764
Ohio	6,306	7,210	10,315	17,670	34,510	54,228
Oklahoma	1,515	1,628	1,989	3,321	7,697	10,164
Oregon	673	839	1,386	2,300	2,821	4,042
Pennsylvania	5,295	5,688	7,575	13,490	25,624	40,492
Rhode Island	450	484	692	1,216	1,901	2,664
South Carolina	419	425	547	954	2,996	3,741
South Dakota	231	239	464	803	1,367	1,865
Tennessee	1,101	1,166	1,327	2,355	7,058	9,516
Texas	6,534	7,216	7,819	9,574	19,123	28,242
Utah	1,416	1,533	1,351	2,252	4,540	5,419
Vermont	47	51	85	167	268	354
Virginia	1,424	1,502	2,088	2,536	6,501	11,185
Washington	1,250	1,628	2,610	4,456	5,418	7,642
West Virginia	537	590	817	1,652	3,877	5,495
Wisconsin	2,726	2,753	4,415	8,015	12,774	20,320
Wyoming	265	273	510	922	1,292	1,562
Total	118,296	124,371	162,277	271,486	473,842	705,207

R = Revised Data.
NA = Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1997

(Million Cubic Feet)

State	1997					
	Total	December	November	October	September	August
Alabama	34,239	3,740	2,540	2,107	2,375	3,087
Alaska	23,254	2,748	2,304	2,221	1,336	1,104
Arizona	30,178	3,386	2,273	1,754	1,839	1,770
Arkansas	29,518	3,996	2,726	1,352	1,133	1,132
California	254,440	26,174	21,235	19,673	18,468	18,728
Colorado	NA	8,532	NA	NA	NA	NA
Connecticut	NA	5,776	3,208	NA	1,560	1,754
Delaware	7,095	1,413	520	282	233	183
District of Columbia	17,034	2,293	1,354	899	852	853
Florida	37,644	3,833	3,203	2,687	2,561	2,651
Georgia	57,474	7,991	6,146	3,654	2,811	2,626
Hawaii	NA	185	NA	171	166	160
Idaho	11,435	1,657	982	585	411	356
Illinois	205,941	27,467	23,244	12,431	6,546	5,935
Indiana	NA	NA	9,608	5,146	2,667	2,551
Iowa	50,218	7,166	5,681	3,031	1,358	1,110
Kansas	NA	NA	4,780	2,508	2,087	2,685
Kentucky	NA	6,217	4,223	NA	1,268	967
Louisiana	25,704	2,987	1,988	1,330	1,250	1,195
Maine	2,713	375	289	176	91	78
Maryland	53,255	6,365	8,614	2,917	2,271	2,226
Massachusetts	105,883	11,544	8,664	7,063	5,488	5,776
Michigan	197,276	26,512	19,536	10,084	6,211	5,889
Minnesota	93,655	12,420	10,831	5,320	2,563	2,522
Mississippi	NA	2,928	2,026	1,157	NA	NA
Missouri	NA	9,543	6,200	NA	2,196	2,054
Montana	13,932	2,005	1,299	793	423	383
Nebraska	42,107	4,247	3,487	2,351	1,868	2,896
Nevada	21,822	2,567	1,797	1,270	1,192	1,145
New Hampshire	NA	1,010	703	411	NA	217
New Jersey	147,228	20,186	13,739	7,215	6,062	5,793
New Mexico	26,151	3,956	2,423	1,160	1,020	997
New York	NA	NA	NA	NA	NA	NA
North Carolina	38,942	5,608	3,490	2,057	1,751	1,629
North Dakota	11,392	1,374	1,163	588	344	291
Ohio	182,416	25,219	R17,840	R9,823	R5,006	R4,408
Oklahoma	43,776	5,673	3,390	2,126	1,659	1,626
Oregon	25,380	3,341	2,016	1,363	1,023	912
Pennsylvania	146,712	20,160	14,246	9,659	5,298	3,779
Rhode Island	12,303	1,413	1,212	637	460	399
South Carolina	20,713	2,671	1,771	1,176	1,904	1,019
South Dakota	10,426	1,312	1,022	549	334	250
Tennessee	NA	8,120	R5,216	2,846	2,120	2,064
Texas	212,352	26,149	20,862	14,187	15,035	15,234
Utah	31,130	5,152	3,187	2,020	1,124	943
Vermont	3,051	403	282	184	108	80
Virginia	61,430	8,549	5,455	3,489	2,392	2,449
Washington	NA	NA	NA	NA	NA	NA
West Virginia	26,927	3,447	2,904	1,576	1,195	1,292
Wisconsin	92,418	12,954	10,586	5,664	2,901	2,961
Wyoming	NA	1,092	1,065	633	NA	345
Total	3,216,920	410,558	R315,177	R188,466	R140,478	R138,290

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997					
	July	June	May	April	March	February
Alabama	3,497	1,779	2,020	2,194	2,613	4,063
Alaska	1,167	1,191	1,546	1,914	2,482	2,198
Arizona	1,939	1,976	2,141	2,563	3,153	3,525
Arkansas	1,133	1,219	1,653	2,172	3,149	4,730
California	17,971	16,572	18,994	21,091	23,612	26,107
Colorado	NA	NA	NA	6,121	NA	NA
Connecticut	1,895	1,986	2,586	4,055	4,797	5,346
Delaware	206	281	420	628	858	1,046
District of Columbia	783	951	1,373	842	2,183	2,316
Florida	2,578	2,917	2,902	3,017	3,307	3,862
Georgia	2,709	2,800	3,216	4,152	4,864	7,924
Hawaii	175	170	166	174	180	188
Idaho	373	399	686	1,041	1,345	1,784
Illinois	6,084	6,145	10,664	16,797	23,444	30,059
Indiana	2,428	6,344	9,965	7,610	10,465	12,807
Iowa	1,306	1,262	2,376	3,976	5,758	7,056
Kansas	3,283	2,078	2,798	4,004	6,012	8,130
Kentucky	1,176	1,181	1,890	2,913	4,093	5,483
Louisiana	1,350	1,408	1,492	1,837	3,313	3,574
Maine	72	92	152	231	378	348
Maryland	2,378	2,305	2,735	4,420	5,563	6,380
Massachusetts	5,555	7,151	6,266	9,068	11,630	13,854
Michigan	2,278	7,664	13,205	19,207	25,654	28,433
Minnesota	2,496	3,004	5,155	8,361	12,000	13,403
Mississippi	NA	1,176	1,237	1,533	2,106	3,062
Missouri	2,151	2,457	3,569	5,786	7,970	12,828
Montana	363	451	714	1,342	1,652	1,947
Nebraska	5,042	1,728	2,430	3,190	4,117	4,845
Nevada	1,097	1,409	1,666	1,896	2,442	2,629
New Hampshire	216	286	472	739	954	1,079
New Jersey	6,094	7,027	9,816	13,645	21,543	14,211
New Mexico	984	960	1,766	1,862	2,935	3,938
New York	NA	NA	NA	NA	NA	NA
North Carolina	1,548	1,770	2,401	2,973	3,806	5,850
North Dakota	305	343	619	1,095	1,408	1,879
Ohio	R4,153	R6,276	11,339	15,190	23,205	28,174
Oklahoma	1,649	1,517	2,617	3,571	5,041	7,183
Oregon	1,007	1,067	1,574	2,304	3,076	3,686
Pennsylvania	4,680	5,554	10,354	13,007	17,888	19,583
Rhode Island	431	537	892	1,144	1,740	1,744
South Carolina	997	1,214	1,278	1,379	1,816	2,689
South Dakota	246	283	604	940	1,235	1,607
Tennessee	2,090	NA	3,242	4,276	NA	9,488
Texas	15,315	11,993	12,860	13,790	18,114	21,368
Utah	927	946	1,268	2,675	3,363	4,473
Vermont	80	108	160	296	429	444
Virginia	2,370	2,681	4,381	5,762	7,212	8,021
Washington	NA	2,917	4,098	4,100	5,627	6,275
West Virginia	1,044	1,181	1,693	2,222	2,816	3,652
Wisconsin	2,769	2,868	5,507	7,225	10,989	12,071
Wyoming	943	633	1,065	1,445	1,593	1,423
Total	R138,988	R149,381	206,302	267,072	359,280	423,060

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997	1996				
	January	Total	December	November	October	September
Alabama	4,224	29,002	3,123	1,991	1,402	1,207
Alaska	3,042	27,315	3,236	2,743	2,337	1,617
Arizona	3,858	29,102	3,259	2,461	1,748	1,680
Arkansas	5,123	31,009	3,876	2,462	1,356	1,106
California	25,816	236,332	24,836	21,313	18,727	17,544
Colorado	NA	68,931	9,028	5,807	3,306	2,227
Connecticut	5,792	39,818	4,902	3,112	2,400	1,822
Delaware	1,025	6,695	821	502	277	223
District of Columbia	2,335	16,353	2,325	1,195	804	774
Florida	4,126	41,898	3,830	3,179	2,957	2,840
Georgia	8,582	61,377	7,462	5,450	3,339	2,673
Hawaii	188	2,132	176	160	170	171
Idaho	1,816	11,540	1,621	1,107	597	421
Illinois	37,125	218,086	32,425	25,216	12,090	7,125
Indiana	15,715	87,568	12,378	9,122	4,102	2,202
Iowa	10,137	54,576	8,510	5,896	2,101	1,926
Kansas	7,190	57,231	9,187	4,867	2,057	1,286
Kentucky	7,206	40,980	5,892	4,439	2,241	1,194
Louisiana	3,979	25,769	2,435	1,680	1,395	1,305
Maine	433	2,566	310	280	172	78
Maryland	7,080	45,891	5,433	4,693	2,427	1,922
Massachusetts	13,824	96,192	11,752	9,718	5,432	4,767
Michigan	32,603	201,431	26,123	19,486	9,472	6,146
Minnesota	15,580	98,580	15,009	10,756	5,479	2,867
Mississippi	3,226	22,230	2,333	1,631	1,088	1,078
Missouri	12,556	72,833	10,204	6,136	2,959	2,235
Montana	2,558	14,836	2,123	1,659	848	498
Nebraska	5,907	40,833	5,032	3,678	2,778	2,273
Nevada	2,711	20,469	2,417	1,817	1,269	1,116
New Hampshire	1,073	7,099	896	698	360	201
New Jersey	21,897	150,432	18,834	12,586	7,731	5,870
New Mexico	4,151	26,544	3,553	2,450	1,365	1,079
New York	NA	253,129	NA	NA	NA	NA
North Carolina	6,059	40,467	5,160	3,240	1,917	1,658
North Dakota	1,982	12,165	1,726	1,286	661	410
Ohio	31,783	190,195	26,298	18,274	8,548	4,048
Oklahoma	7,724	46,284	6,014	3,273	1,900	1,759
Oregon	4,011	25,622	3,595	2,314	1,306	1,023
Pennsylvania	22,506	154,677	22,333	15,107	8,161	4,302
Rhode Island	1,694	12,301	1,290	972	648	581
South Carolina	2,799	20,329	2,447	1,644	1,157	1,041
South Dakota	2,045	11,602	1,813	1,237	571	352
Tennessee	9,084	58,513	7,599	5,116	2,830	2,354
Texas	27,444	178,573	18,053	12,865	10,151	8,830
Utah	5,051	29,666	4,220	3,185	2,073	1,279
Vermont	477	2,825	348	276	162	90
Virginia	8,670	59,294	7,489	5,776	3,363	2,401
Washington	7,474	48,252	6,623	4,489	2,701	1,920
West Virginia	3,903	28,030	3,400	2,494	1,620	1,171
Wisconsin	15,922	93,868	13,368	11,029	4,694	2,376
Wyoming	1,681	9,735	1,748	1,301	640	250
Total	479,866	3,161,176	409,165	294,522	171,277	124,490

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1996					
	August	July	June	May	April	March
Alabama	1,133	1,169	1,234	1,716	2,881	3,735
Alaska	1,396	1,337	1,458	1,789	2,364	2,748
Arizona	1,753	1,779	1,987	2,110	2,532	2,984
Arkansas	1,060	1,056	1,052	1,519	2,964	3,895
California	17,540	17,155	15,772	16,348	17,358	21,723
Colorado	2,156	2,406	3,052	4,424	6,977	8,873
Connecticut	1,714	1,969	1,747	2,255	3,535	4,851
Delaware	203	202	245	365	691	885
District of Columbia	750	878	824	1,233	1,925	1,551
Florida	2,716	2,836	3,029	3,336	3,918	4,167
Georgia	2,594	2,737	2,508	3,297	5,425	7,564
Hawaii	166	176	176	172	190	184
Idaho	354	346	477	710	996	1,359
Illinois	5,314	5,426	5,695	9,659	17,937	27,306
Indiana	2,104	2,111	2,464	4,195	7,791	11,697
Iowa	1,080	1,212	1,664	2,734	4,783	7,103
Kansas	3,505	3,341	1,916	3,017	4,820	6,592
Kentucky	1,123	1,033	1,057	1,509	3,305	5,586
Louisiana	1,321	1,268	1,477	1,618	2,384	3,016
Maine	75	74	82	132	208	356
Maryland	1,866	1,608	1,816	2,672	3,766	5,476
Massachusetts	4,274	3,751	4,176	6,555	8,955	11,148
Michigan	5,383	5,673	6,343	12,272	19,664	27,914
Minnesota	2,254	2,377	3,072	5,383	8,798	12,931
Mississippi	1,198	1,156	1,069	1,256	1,987	2,558
Missouri	2,356	2,289	2,380	3,563	6,625	9,501
Montana	374	386	509	862	1,332	1,763
Nebraska	2,489	3,544	1,460	1,995	3,099	4,257
Nevada	1,062	1,145	1,286	1,454	1,811	2,268
New Hampshire	193	180	244	402	661	972
New Jersey	5,536	5,807	6,280	8,824	14,789	18,891
New Mexico	1,352	1,429	1,592	1,410	2,433	2,509
New York	NA	NA	NA	NA	NA	NA
North Carolina	1,575	1,415	1,586	1,970	3,760	4,851
North Dakota	301	271	348	677	1,142	1,713
Ohio	4,401	4,569	7,661	8,960	16,833	26,650
Oklahoma	1,678	1,798	1,770	2,222	4,413	5,595
Oregon	905	967	1,304	1,786	2,059	2,900
Pennsylvania	4,365	4,348	5,199	7,729	13,276	20,748
Rhode Island	443	421	446	757	1,251	1,606
South Carolina	957	940	997	1,154	1,884	2,190
South Dakota	283	288	385	619	1,059	1,487
Tennessee	1,979	1,962	2,145	2,682	5,317	7,255
Texas	12,079	12,459	12,257	14,205	17,134	20,685
Utah	874	904	892	1,356	2,479	3,129
Vermont	69	67	97	153	279	381
Virginia	2,081	2,517	2,928	3,465	5,137	7,357
Washington	1,697	1,857	2,672	3,434	4,147	5,450
West Virginia	1,259	1,317	1,062	1,511	2,457	3,393
Wisconsin	2,294	2,037	2,796	5,017	8,140	12,243
Wyoming	197	197	342	712	925	1,030
Total	122,985	125,522	133,356	182,859	283,635	387,264

R = Revised Data.
NA = Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. Deliveries for total year 1996 may not equal the sum of the twelve months. Gas volumes delivered for use as vehicle fuel are included in the annual total but not in the monthly components. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1997

(Million Cubic Feet)

State	1997					
	Total	December	November	October	September	August
Alabama	206,129	18,755	17,910	17,161	16,150	16,827
Alaska	73,863	6,876	5,571	6,313	4,233	6,395
Arizona	27,134	2,688	2,360	2,335	2,582	2,375
Arkansas	147,046	13,202	12,751	12,471	11,035	11,994
California	731,180	63,859	61,447	60,283	65,816	67,815
Colorado	NA	7,088	NA	NA	NA	NA
Connecticut	35,031	3,422	3,408	2,588	2,362	2,550
Delaware	14,292	1,032	1,327	1,202	1,107	1,017
District of Columbia	0	0	0	0	0	0
Florida	NA	12,641	12,056	12,083	NA	11,529
Georgia	170,988	12,800	12,468	12,817	12,855	13,575
Hawaii	0	0	—	0	0	0
Idaho [a]	35,089	3,159	3,109	3,226	2,756	2,371
Illinois	316,352	30,515	27,702	24,750	22,004	20,706
Indiana	NA	NA	26,650	23,332	21,152	20,475
Iowa	111,430	10,686	10,199	9,886	8,468	8,680
Kansas	NA	NA	8,212	7,830	7,321	7,998
Kentucky	NA	9,442	8,835	NA	7,052	7,079
Louisiana	983,217	81,573	80,707	84,368	R82,780	R83,946
Maine	2,525	216	296	243	208	191
Maryland	61,353	13,713	263	4,308	4,427	5,019
Massachusetts	108,725	9,185	8,316	8,095	7,625	8,946
Michigan	326,414	31,551	27,735	24,470	23,655	23,705
Minnesota	102,200	9,571	9,674	8,759	7,183	7,771
Mississippi	NA	7,043	7,238	6,572	NA	NA
Missouri	NA	6,701	6,057	NA	4,322	4,338
Montana	18,122	2,064	1,850	1,612	1,290	1,253
Nebraska	31,322	3,723	1,923	R2,697	2,050	2,627
Nevada	31,100	2,530	2,499	2,689	2,654	2,675
New Hampshire	NA	468	442	499	NA	451
New Jersey	202,654	17,569	15,519	16,683	16,219	17,715
New Mexico	24,853	2,146	2,019	1,881	1,982	1,957
New York	NA	NA	27,644	22,070	26,560	NA
North Carolina	116,320	10,426	9,608	9,568	9,017	9,696
North Dakota	10,999	929	869	812	754	817
Ohio	336,659	32,492	30,107	26,986	24,750	24,078
Oklahoma	205,823	16,600	15,704	15,473	16,687	17,620
Oregon	89,782	9,596	8,694	8,284	8,041	8,313
Pennsylvania	234,163	20,983	21,509	17,230	16,783	17,206
Rhode Island	24,470	2,179	2,148	1,509	1,440	1,491
South Carolina	115,115	9,344	8,702	8,239	8,883	R10,653
South Dakota	6,961	606	618	425	470	499
Tennessee	NA	12,466	R8,602	11,242	13,313	13,153
Texas	NA	174,230	162,492	165,162	NA	172,857
Utah	44,290	4,504	4,129	4,228	2,497	3,369
Vermont	2,337	235	226	224	176	157
Virginia	84,644	7,773	6,522	5,914	6,951	8,927
Washington	NA	NA	NA	NA	NA	NA
West Virginia	51,114	4,610	4,353	4,150	4,032	4,106
Wisconsin	152,545	14,848	14,202	11,931	10,069	9,521
Wyoming	NA	4,102	4,328	NA	NA	3,672
Total	8,759,940	789,275	R724,299	R706,570	R687,896	R715,778

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997					
	July	June	May	April	March	February
Alabama	16,848	16,253	17,284	18,182	16,885	16,341
Alaska	5,968	5,915	5,619	6,443	6,993	6,448
Arizona	2,246	2,170	2,332	1,989	2,071	1,944
Arkansas	11,785	11,598	11,903	12,008	12,361	12,195
California	65,810	58,874	58,119	57,480	57,065	55,756
Colorado	NA	NA	NA	6,831	NA	NA
Connecticut	2,440	2,441	2,870	3,308	3,521	3,031
Delaware	1,106	1,156	1,308	1,354	1,249	1,192
District of Columbia	0	0	0	0	0	0
Florida	12,164	11,539	12,515	12,365	11,905	11,527
Georgia	12,874	12,448	16,828	16,740	16,153	16,385
Hawaii	0	0	0	0	0	0
Idaho [a]	2,723	2,724	2,673	3,180	3,200	2,802
Illinois	22,431	22,272	25,139	26,550	29,761	31,673
Indiana	19,853	17,289	19,839	23,608	26,703	25,597
Iowa	7,768	7,823	8,516	9,081	9,800	9,785
Kansas	11,607	8,284	8,904	8,519	9,297	8,058
Kentucky	6,526	6,669	7,704	7,769	8,408	8,964
Louisiana	R80,979	R82,324	R83,780	R82,622	R78,729	78,331
Maine	178	197	226	247	182	162
Maryland	4,767	5,126	4,734	4,495	5,528	4,661
Massachusetts	8,930	10,487	8,389	10,392	10,520	10,375
Michigan	16,029	25,327	27,343	27,854	32,629	32,134
Minnesota	6,780	7,681	7,566	8,338	9,333	10,082
Mississippi	NA	6,054	5,804	6,535	6,721	6,686
Missouri	4,492	4,810	4,987	7,149	5,099	9,463
Montana	1,093	1,176	1,365	1,178	1,695	1,634
Nebraska	1,207	R2,343	2,465	3,051	3,167	3,090
Nevada	2,517	2,519	2,791	2,424	2,665	2,462
New Hampshire	422	434	905	632	570	411
New Jersey	16,450	15,822	16,773	16,587	18,406	15,694
New Mexico	2,097	2,041	2,123	1,935	1,944	2,119
New York	NA	NA	NA	NA	NA	NA
North Carolina	9,102	9,195	9,687	10,561	10,341	9,950
North Dakota	473	707	911	867	1,574	1,253
Ohio	22,725	22,461	26,644	27,049	30,688	32,631
Oklahoma	16,618	17,536	17,339	17,335	17,207	18,790
Oregon	7,289	5,557	6,033	6,322	6,726	6,525
Pennsylvania	15,131	16,359	18,780	21,556	22,001	23,241
Rhode Island	2,159	2,265	2,401	2,514	2,241	1,993
South Carolina	17,104	8,451	9,122	9,260	9,152	8,054
South Dakota	322	492	531	624	705	792
Tennessee	10,831	NA	11,767	12,548	NA	12,789
Texas	166,725	165,999	166,759	164,032	182,742	160,683
Utah	3,482	3,408	3,633	3,757	3,777	3,698
Vermont	144	146	218	200	234	197
Virginia	8,064	5,864	7,452	6,449	4,162	8,056
Washington	NA	8,005	8,513	8,189	9,259	9,170
West Virginia	3,991	3,905	4,439	6,731	2,577	3,836
Wisconsin	9,041	9,458	11,310	13,597	15,650	14,948
Wyoming	3,234	3,858	4,125	3,864	3,795	3,792
Total	R691,587	R680,528	R713,886	R732,025	R766,735	746,944

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997	1996				
	January	Total	December	November	October	September
Alabama	17,534	201,414	17,016	16,951	18,097	16,712
Alaska	7,090	75,616	7,034	6,450	6,421	6,288
Arizona	2,041	26,979	2,536	2,436	2,363	2,246
Arkansas	13,744	141,300	12,552	12,171	12,008	10,821
California	58,855	693,539	61,618	59,107	57,199	57,688
Colorado	NA	83,640	7,861	7,271	5,109	6,270
Connecticut	3,088	32,451	3,013	3,386	3,108	2,589
Delaware	1,243	14,164	1,148	1,180	1,338	1,138
District of Columbia	0	0	0	0	0	0
Florida	12,521	136,722	11,160	11,655	10,931	11,324
Georgia	15,044	181,768	15,926	15,856	15,569	15,136
Hawaii	0	0	0	0	0	0
Idaho [a]	3,166	34,577	2,891	2,747	3,023	2,802
Illinois	32,850	322,275	35,802	30,672	24,666	19,734
Indiana	29,284	289,219	25,886	24,549	23,056	20,528
Iowa	10,738	113,995	10,955	11,178	9,460	7,445
Kansas	11,851	110,294	9,372	9,897	7,314	8,141
Kentucky	10,483	94,481	9,646	8,705	7,555	6,589
Louisiana	83,077	1,048,432	86,865	89,171	89,370	87,576
Maine	180	2,190	171	234	239	185
Maryland	4,312	50,022	4,956	3,981	4,196	4,055
Massachusetts	7,465	100,015	9,252	8,643	9,419	8,119
Michigan	33,982	347,043	32,754	29,990	25,126	24,187
Minnesota	9,463	102,471	9,903	10,656	9,236	7,719
Mississippi	7,337	80,887	6,503	6,507	7,363	6,432
Missouri	7,097	71,533	6,510	6,157	4,963	4,540
Montana	1,913	18,103	1,985	1,668	1,554	1,382
Nebraska	2,979	36,125	3,689	3,179	3,248	2,452
Nevada	2,675	32,606	2,859	2,705	2,548	2,728
New Hampshire	411	4,916	404	529	471	392
New Jersey	19,217	200,933	27,230	17,727	14,853	14,574
New Mexico	2,608	22,858	2,173	1,875	1,799	1,751
New York	NA	322,661	31,374	26,765	25,488	25,312
North Carolina	9,168	104,124	9,413	9,964	10,368	8,412
North Dakota	1,033	7,911	924	955	685	552
Ohio	36,048	347,149	33,111	30,242	27,432	22,996
Oklahoma	18,914	201,024	19,194	15,941	16,689	16,741
Oregon	8,402	87,754	8,498	8,526	8,657	7,954
Pennsylvania	23,384	243,499	21,089	22,617	19,275	17,697
Rhode Island	2,131	25,829	2,553	2,992	3,189	2,921
South Carolina	8,152	95,493	8,646	8,699	8,836	7,982
South Dakota	877	7,182	715	694	523	427
Tennessee	11,698	126,545	12,264	12,388	10,679	10,240
Texas	187,054	2,138,155	181,384	171,353	181,999	186,067
Utah	3,809	42,213	3,693	3,663	3,592	3,436
Vermont	181	1,953	191	211	174	151
Virginia	8,513	84,357	9,782	7,474	6,080	5,162
Washington	9,112	114,236	9,758	10,859	10,660	10,161
West Virginia	4,386	49,997	4,443	4,418	4,310	4,596
Wisconsin	17,970	149,517	15,456	14,652	11,984	9,773
Wyoming	5,060	50,253	4,647	4,741	4,678	3,699
Total	804,415	8,870,422	806,805	764,387	736,900	705,823

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1996					
	August	July	June	May	April	March
Alabama	15,966	16,304	15,508	16,367	16,867	17,001
Alaska	6,961	6,577	6,268	5,808	6,123	6,764
Arizona	2,125	2,175	2,126	1,640	2,330	2,403
Arkansas	11,492	11,423	11,344	10,729	11,412	12,152
California	62,705	58,086	52,431	58,146	56,490	53,746
Colorado	7,792	7,657	5,366	5,700	7,856	7,559
Connecticut	2,561	2,311	2,438	2,423	2,778	2,989
Delaware	1,116	1,122	1,303	1,206	1,046	1,314
District of Columbia	0	0	0	0	0	0
Florida	11,135	11,167	10,635	12,532	11,288	11,402
Georgia	15,887	13,599	14,461	15,625	15,871	15,818
Hawaii	0	0	0	0	0	0
Idaho [a]	2,409	2,697	2,699	2,850	2,856	3,207
Illinois	20,575	18,553	20,876	24,750	26,670	31,101
Indiana	19,795	20,302	42,381	8,491	23,219	26,554
Iowa	8,696	8,238	8,322	9,074	9,594	10,302
Kansas	9,817	9,579	9,392	8,177	9,070	9,649
Kentucky	6,259	6,006	8,486	6,325	7,365	8,704
Louisiana	87,989	87,008	90,218	87,124	86,136	89,479
Maine	177	144	186	181	155	182
Maryland	4,335	4,202	3,918	4,016	4,940	4,643
Massachusetts	9,040	7,437	7,365	6,897	8,263	8,737
Michigan	23,728	24,101	25,308	27,715	30,370	34,729
Minnesota	7,451	7,596	7,500	7,602	8,293	8,985
Mississippi	6,200	6,446	6,233	6,383	6,796	7,165
Missouri	5,883	4,219	4,744	5,645	6,518	7,064
Montana	1,429	1,267	1,215	1,331	1,356	1,484
Nebraska	2,467	2,479	2,616	2,652	3,106	3,337
Nevada	2,787	2,862	2,723	2,873	2,538	2,664
New Hampshire	393	371	378	434	434	418
New Jersey	11,728	16,131	14,290	16,050	17,290	16,918
New Mexico	1,774	1,801	1,855	1,630	1,967	1,792
New York	26,927	25,513	25,268	23,861	26,802	27,499
North Carolina	8,358	8,237	8,249	8,608	9,026	9,179
North Dakota	425	401	530	668	719	748
Ohio	23,427	22,090	28,997	26,200	28,656	31,419
Oklahoma	17,073	16,822	14,616	15,859	14,961	17,627
Oregon	7,886	7,326	6,794	6,702	5,968	6,373
Pennsylvania	18,213	16,820	18,056	19,705	20,625	23,261
Rhode Island	2,998	1,684	2,159	2,128	1,975	485
South Carolina	8,162	7,955	7,868	8,550	8,454	7,781
South Dakota	471	461	456	473	497	1,223
Tennessee	9,810	9,723	9,956	9,308	9,854	10,161
Texas	171,985	163,216	172,584	180,659	179,407	191,706
Utah	3,374	3,253	3,162	3,364	3,424	3,625
Vermont	155	107	154	178	135	226
Virginia	7,113	6,792	4,243	7,255	6,290	9,169
Washington	9,892	8,911	7,653	8,599	8,797	9,097
West Virginia	3,932	3,912	3,706	3,925	3,953	4,340
Wisconsin	9,274	8,609	8,845	10,786	12,912	15,305
Wyoming	3,851	3,568	4,082	3,988	4,135	3,974
Total	703,997	677,260	709,964	701,193	735,588	781,460

[a] Small volumes of natural gas representing onsystem sales to industrial consumers in Idaho are included in the annual total but not in monthly components. Deliveries for total year 1995 in Idaho do not equal the sum of the twelve months.

[R] = Revised Data.

[NA] = Not Available.

— = Not Applicable.

Notes: Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1996-1997

(Million Cubic Feet)

State	1997					
	Total	December	November	October	September	August
Alabama	9,998	87	295	846	1,247	2,373
Alaska	33,510	3,020	2,674	2,686	2,295	2,439
Arizona	23,389	752	399	1,543	5,105	4,809
Arkansas	25,122	298	380	2,322	3,419	5,336
California	379,001	27,270	22,422	35,144	56,542	48,250
Colorado	5,583	454	388	646	672	721
Connecticut	16,351	555	1,448	1,825	1,725	2,303
Delaware	16,095	699	681	356	667	1,592
District of Columbia	0	0	0	0	0	0
Florida	294,401	21,510	14,152	21,021	26,634	33,367
Georgia	7,335	49	124	307	1,158	2,197
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	45,100	5,070	3,947	3,834	2,400	3,847
Indiana	4,659	137	212	282	243	480
Iowa	4,360	219	265	483	247	393
Kansas	25,577	1,972	2,455	2,618	2,092	3,457
Kentucky	2,194	158	190	200	181	311
Louisiana	277,222	16,782	14,538	22,047	30,524	34,549
Maine	0	0	0	0	0	0
Maryland	11,009	209	364	749	623	1,051
Massachusetts	51,331	2,409	3,175	3,127	4,783	5,577
Michigan	33,559	3,051	3,159	3,266	2,944	2,874
Minnesota	6,118	112	139	383	290	671
Mississippi	73,093	4,573	4,060	5,427	8,117	11,936
Missouri	7,518	313	342	561	754	1,220
Montana	420	21	30	40	27	46
Nebraska	2,697	34	78	359	267	370
Nevada	51,786	3,648	1,803	4,364	6,211	7,832
New Hampshire	624	34	26	60	60	77
New Jersey	29,539	552	1,340	2,085	1,349	4,239
New Mexico	33,380	1,998	2,224	3,224	2,834	4,338
New York	211,026	14,264	12,308	16,058	19,107	28,874
North Carolina	4,513	3	25	507	433	747
North Dakota	1	0	0	0	0	0
Ohio	3,456	120	243	393	266	301
Oklahoma	129,442	11,453	8,271	10,105	14,088	20,598
Oregon	12,451	1,912	1,072	2,757	2,758	2,950
Pennsylvania	7,371	365	212	301	418	923
Rhode Island	27,163	2,602	2,488	2,503	2,365	2,424
South Carolina	2,732	35	112	240	212	422
South Dakota	1,731	83	90	45	88	228
Tennessee	1,636	0	0	209	0	328
Texas	1,056,751	69,575	72,433	90,889	126,080	141,938
Utah	3,506	153	150	116	784	934
Vermont	36	4	2	4	2	4
Virginia	10,808	857	356	736	545	1,378
Washington	2,618	187	220	164	1,191	731
West Virginia	219	11	2	17	15	9
Wisconsin	15,850	469	402	746	700	899
Wyoming	95	15	15	5	5	3
Total	2,962,375	198,095	179,712	245,601	332,464	390,347

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997					
	July	June	May	April	March	February
Alabama	2,901	931	483	386	168	156
Alaska	2,736	2,580	2,903	2,924	3,594	2,439
Arizona	4,118	1,932	2,742	723	588	358
Arkansas	7,586	3,488	583	614	253	217
California	43,994	26,546	37,243	25,412	24,423	14,231
Colorado	710	340	397	267	328	261
Connecticut	2,416	1,366	1,141	1,229	944	1,208
Delaware	2,003	1,097	1,064	1,841	2,280	2,069
District of Columbia	0	0	0	0	0	0
Florida	33,080	31,138	29,415	27,872	28,725	17,001
Georgia	2,592	439	203	176	30	18
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	8,073	4,639	2,931	4,976	2,503	1,679
Indiana	1,690	721	210	200	199	137
Iowa	887	416	286	269	405	231
Kansas	6,295	3,113	1,226	840	553	409
Kentucky	525	170	21	117	130	80
Louisiana	39,943	29,948	25,570	19,113	15,854	13,608
Maine	0	0	0	0	0	0
Maryland	3,382	1,857	726	1,478	337	47
Massachusetts	6,018	6,206	3,811	6,611	5,258	2,785
Michigan	3,708	2,776	2,772	2,282	2,434	2,375
Minnesota	1,139	687	596	621	698	124
Mississippi	14,015	8,386	4,689	3,034	2,932	2,717
Missouri	2,812	1,029	96	175	78	53
Montana	116	8	7	15	18	27
Nebraska	892	221	110	174	82	78
Nevada	7,265	5,272	5,220	3,518	3,822	1,363
New Hampshire	12	353	0	0	0	0
New Jersey	8,152	4,613	1,480	1,869	2,092	1,023
New Mexico	4,026	2,923	2,445	2,548	2,769	1,991
New York	34,220	27,370	16,444	11,135	14,307	12,117
North Carolina	1,889	811	61	26	1	9
North Dakota	1	0	0	0	0	0
Ohio	1,065	591	105	106	71	71
Oklahoma	20,971	12,311	6,747	7,058	6,712	4,867
Oregon	357	147	3	0	200	0
Pennsylvania	2,725	886	295	326	324	316
Rhode Island	2,005	2,185	2,447	1,854	2,180	2,021
South Carolina	922	621	67	72	12	4
South Dakota	582	360	85	85	39	19
Tennessee	844	255	0	0	0	0
Texas	144,610	103,342	73,272	59,323	60,401	54,897
Utah	709	22	126	123	134	118
Vermont	4	3	3	3	3	2
Virginia	2,371	1,262	626	1,398	1,058	44
Washington	25	1	86	5	0	2
West Virginia	23	40	33	9	23	23
Wisconsin	2,180	1,695	1,861	1,777	2,165	1,782
Wyoming	4	13	6	6	6	7
Total	426,594	295,112	230,637	192,593	189,131	142,984

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997	1996				
	January	Total	December	November	October	September
Alabama	125	6,146	291	480	384	593
Alaska	3,220	31,767	3,078	2,683	2,637	2,449
Arizona	319	19,248	443	296	2,242	2,145
Arkansas	626	33,988	1,226	297	201	4,215
California	17,524	318,035	17,182	22,900	32,454	35,564
Colorado	398	5,511	454	319	506	724
Connecticut	192	10,456	131	912	1,643	2,168
Delaware	1,746	23,370	1,048	2,129	2,330	2,562
District of Columbia	0	0	0	0	0	0
Florida	10,485	283,557	13,124	17,908	28,677	33,595
Georgia	42	4,674	43	80	9	243
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	1,201	25,863	550	1,859	1,046	2,309
Indiana	147	4,330	236	256	144	197
Iowa	261	3,491	236	232	211	277
Kansas	547	22,607	672	578	808	1,959
Kentucky	111	1,836	82	104	65	83
Louisiana	14,747	252,139	12,921	14,958	18,877	21,484
Maine	0	0	0	0	0	0
Maryland	185	8,455	211	263	485	1,521
Massachusetts	1,570	45,037	1,562	3,081	8,648	9,009
Michigan	1,916	32,559	2,888	3,151	2,705	3,320
Minnesota	658	5,301	419	403	469	602
Mississippi	3,207	83,251	3,671	6,561	5,392	9,812
Missouri	86	5,223	69	238	193	287
Montana	64	470	72	85	42	35
Nebraska	31	2,351	82	94	122	161
Nevada	1,468	46,766	2,311	2,458	4,266	4,900
New Hampshire	0	3	0	1	0	0
New Jersey	746	25,825	445	1,038	1,481	3,575
New Mexico	2,059	29,969	2,244	2,423	2,787	2,492
New York	4,823	142,688	5,108	10,715	14,459	21,421
North Carolina	0	2,381	1	1	112	75
North Dakota	0	3	0	0	0	1
Ohio	124	2,867	106	259	56	257
Oklahoma	6,260	136,436	6,107	8,068	9,395	13,201
Oregon	295	14,015	334	1,289	3,049	3,801
Pennsylvania	281	7,239	282	654	650	1,150
Rhode Island	2,088	25,071	2,167	2,449	2,424	2,236
South Carolina	11	1,206	20	16	23	350
South Dakota	26	725	35	80	5	76
Tennessee	0	572	0	1	0	79
Texas	59,992	1,039,155	51,332	59,062	75,410	90,570
Utah	138	3,428	142	130	133	554
Vermont	2	24	3	3	3	3
Virginia	178	10,275	333	193	473	1,677
Washington	6	6,590	21	358	801	2,251
West Virginia	12	205	43	3	1	26
Wisconsin	1,174	7,303	702	803	572	739
Wyoming	9	87	6	6	7	8
Total	139,104	2,732,496	132,434	169,879	226,394	284,758

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1996					
	August	July	June	May	April	March
Alabama	708	1,457	931	840	112	134
Alaska	2,595	2,514	2,611	2,592	2,434	2,763
Arizona	4,797	3,286	1,940	1,047	828	649
Arkansas	5,421	7,029	5,722	4,342	3,663	1,181
California	53,941	42,047	23,684	18,648	18,202	13,728
Colorado	798	665	400	584	246	317
Connecticut	2,269	1,409	951	595	298	28
Delaware	2,416	2,342	2,724	1,189	1,291	1,742
District of Columbia	0	0	0	0	0	0
Florida	33,376	29,468	28,311	31,435	21,801	15,773
Georgia	588	1,514	1,010	1,000	61	98
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	4,289	4,369	4,205	2,562	2,103	856
Indiana	570	483	746	506	248	233
Iowa	298	355	545	435	289	274
Kansas	4,148	4,884	4,175	1,661	728	726
Kentucky	281	249	235	236	139	119
Louisiana	32,455	35,959	31,317	26,523	13,556	15,080
Maine	0	0	0	0	0	0
Maryland	1,920	1,273	1,278	980	220	126
Massachusetts	7,190	3,508	3,616	2,443	2,108	1,485
Michigan	2,746	2,767	3,062	2,613	2,011	2,100
Minnesota	624	690	699	273	342	351
Mississippi	12,074	10,509	11,998	8,484	4,734	3,311
Missouri	896	1,152	1,011	802	184	111
Montana	23	45	52	8	4	37
Nebraska	213	348	466	320	202	139
Nevada	6,394	6,552	4,802	4,271	2,737	2,474
New Hampshire	0	0	0	0	0	0
New Jersey	4,064	4,441	4,207	1,984	647	483
New Mexico	3,456	3,480	2,895	3,067	1,997	2,383
New York	24,086	18,789	16,773	13,132	5,595	5,703
North Carolina	196	766	802	377	3	3
North Dakota	1	0	1	0	0	0
Ohio	593	312	477	426	46	58
Oklahoma	19,557	19,747	17,701	12,313	7,340	7,490
Oregon	3,202	2,339	0	0	0	0
Pennsylvania	1,778	676	591	506	262	225
Rhode Island	2,417	2,031	2,045	2,011	1,700	2,395
South Carolina	64	239	278	188	9	9
South Dakota	178	155	174	2	3	6
Tennessee	240	130	78	15	0	29
Texas	119,967	136,109	114,370	114,229	72,920	72,619
Utah	870	810	227	8	128	137
Vermont	2	3	4	0	2	0
Virginia	1,578	1,704	1,532	860	107	314
Washington	2,558	451	0	1	0	57
West Virginia	15	11	21	9	16	13
Wisconsin	1,198	532	772	696	229	353
Wyoming	9	4	17	5	5	8
Total	367,059	357,604	299,454	264,216	169,550	156,120

[a] Includes all steam electric utility generating plants with a combined capacity of 50 megawatts or greater.

Notes: Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-759, "Monthly Power Plant Report."

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1997

(Million Cubic Feet)

State	1997					
	Total	December	November	October	September	August
Alabama	298,694	30,497	24,708	21,549	21,022	23,524
Alaska	145,912	14,805	12,233	R12,789	8,607	10,340
Arizona	111,863	11,606	7,012	6,688	10,653	9,864
Arkansas	244,158	23,871	19,875	17,490	16,537	19,380
California	1,850,853	186,813	145,641	140,005	162,598	155,744
Colorado	NA	32,613	NA	NA	NA	15,219
Connecticut	NA	15,653	11,689	NA	6,648	7,510
Delaware	46,402	4,350	3,196	2,089	2,190	2,970
District of Columbia	32,732	4,605	2,768	1,452	1,245	1,226
Florida	NA	40,021	30,603	36,546	NA	48,290
Georgia	350,078	40,562	35,202	23,555	20,015	21,341
Hawaii	2,692	230	R293	209	206	201
Idaho	61,769	7,188	5,520	4,450	3,482	3,021
Illinois	1,064,764	132,738	111,209	70,501	42,647	40,598
Indiana	NA	NA	53,928	36,889	27,553	26,494
Iowa	247,365	30,110	24,737	17,427	11,718	11,655
Kansas	NA	NA	24,259	15,375	13,128	15,756
Kentucky	NA	26,970	21,323	NA	9,949	9,434
Louisiana	1,338,506	109,349	101,554	109,830	R116,252	R121,361
Maine	6,247	733	692	486	329	294
Maryland	202,726	31,215	17,537	11,516	9,388	10,095
Massachusetts	NA	38,412	30,295	23,065	20,450	22,736
Michigan	936,681	111,094	88,328	55,655	41,577	39,732
Minnesota	334,365	39,809	36,021	21,273	12,899	13,520
Mississippi	NA	18,871	15,869	14,052	NA	19,986
Missouri	NA	35,565	24,676	NA	9,897	10,016
Montana	53,469	7,288	5,208	3,676	2,248	2,129
Nebraska	123,359	13,794	9,890	R6,790	5,122	6,830
Nevada	129,862	12,612	8,016	9,342	10,859	12,429
New Hampshire	NA	2,445	1,788	1,296	NA	901
New Jersey	592,147	68,929	50,492	34,826	28,939	32,427
New Mexico	120,763	16,262	10,734	7,474	6,667	8,135
New York	NA	NA	NA	NA	NA	75,891
North Carolina	212,768	25,256	18,008	13,572	12,136	12,972
North Dakota	34,293	3,774	3,211	1,875	1,327	1,314
Ohio	877,184	108,920	R85,199	R56,537	R37,250	R34,989
Oklahoma	450,787	44,779	33,546	29,671	33,982	41,364
Oregon	160,667	19,682	14,591	13,902	12,559	12,845
Pennsylvania	650,552	79,331	62,304	40,177	28,814	26,622
Rhode Island	82,097	8,703	7,312	5,307	4,738	4,757
South Carolina	164,035	16,684	12,984	10,286	11,464	R12,538
South Dakota	32,343	3,736	3,059	1,587	1,153	1,210
Tennessee	266,476	31,651	R20,204	16,202	16,619	16,625
Texas	NA	303,574	275,205	278,498	NA	336,130
Utah	137,025	20,183	13,483	10,663	6,362	6,712
Vermont	8,055	988	724	529	345	293
Virginia	230,599	28,837	19,761	13,146	11,527	14,228
Washington	NA	NA	NA	NA	NA	15,634
West Virginia	113,410	13,499	11,208	7,101	6,025	6,001
Wisconsin	397,149	47,428	41,412	26,495	16,644	15,931
Wyoming	NA	6,350	6,583	NA	NA	4,271
Total	19,945,409	2,130,174	R1,718,790	R1,376,615	R1,292,675	R1,363,483

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997					
	July	June	May	April	March	February
Alabama	24,638	20,567	22,424	23,942	24,993	29,657
Alaska	10,334	10,194	10,857	12,458	R14,836	R12,703
Arizona	9,323	7,232	8,786	7,535	10,047	10,920
Arkansas	21,532	17,545	16,464	18,087	20,705	24,896
California	154,614	125,563	143,063	143,256	153,477	162,782
Colorado	16,390	NA	NA	22,148	NA	NA
Connecticut	7,699	7,173	8,929	12,971	14,438	16,123
Delaware	3,508	2,852	3,348	4,766	5,652	5,918
District of Columbia	1,202	1,513	2,317	2,158	4,232	4,971
Florida	48,608	46,450	45,776	44,267	45,215	34,457
Georgia	21,371	19,045	24,082	29,290	30,047	40,351
Hawaii	218	211	207	215	226	237
Idaho	3,441	3,556	4,298	5,685	6,454	7,128
Illinois	46,966	44,672	64,815	89,515	117,123	132,750
Indiana	26,823	29,312	39,497	46,637	58,050	64,835
Iowa	11,554	11,603	15,115	20,297	25,491	28,952
Kansas	23,046	15,127	16,509	19,765	24,630	28,702
Kentucky	9,646	9,592	12,569	15,682	19,924	23,491
Louisiana	R123,957	R115,730	R113,665	R107,251	R103,515	104,504
Maine	271	323	434	562	702	643
Maryland	12,434	11,966	12,410	17,306	20,426	23,169
Massachusetts	23,334	28,215	25,382	38,194	42,536	NA
Michigan	26,763	47,778	70,279	87,599	112,016	120,488
Minnesota	13,121	14,870	20,092	28,755	38,990	43,574
Mississippi	22,094	16,536	13,193	13,006	14,796	17,432
Missouri	12,172	11,961	15,127	24,139	28,569	45,769
Montana	1,983	2,266	3,230	4,531	5,832	6,646
Nebraska	8,156	R5,777	8,181	10,771	13,598	15,841
Nevada	11,767	10,182	11,097	9,856	12,100	10,278
New Hampshire	811	1,336	1,843	2,115	2,437	2,626
New Jersey	35,798	33,919	39,327	50,240	74,025	65,637
New Mexico	7,921	6,162	8,286	7,849	11,458	13,678
New York	82,575	NA	NA	NA	NA	NA
North Carolina	13,613	13,376	15,141	17,647	19,958	25,811
North Dakota	1,006	1,384	2,260	3,140	4,558	5,115
Ohio	R35,475	R39,113	59,663	75,369	98,118	113,372
Oklahoma	40,916	33,470	30,560	34,124	38,029	43,527
Oregon	9,490	7,800	9,529	11,832	14,351	15,519
Pennsylvania	27,689	30,381	44,874	60,020	73,750	84,428
Rhode Island	5,075	5,714	6,911	7,506	8,622	8,649
South Carolina	19,536	10,987	11,697	12,486	13,572	15,741
South Dakota	1,398	1,503	2,004	2,900	3,604	4,506
Tennessee	14,884	15,758	18,028	21,621	26,945	34,363
Texas	333,478	288,929	263,312	251,169	283,943	270,103
Utah	6,619	5,977	6,848	11,430	13,219	16,656
Vermont	285	354	569	782	1,048	1,059
Virginia	14,380	11,860	16,686	20,271	21,555	27,861
Washington	13,007	13,977	18,288	16,880	23,019	24,824
West Virginia	5,547	6,088	8,410	12,384	9,734	13,142
Wisconsin	16,868	16,987	26,134	33,711	46,182	48,124
Wyoming	4,475	4,900	6,272	6,374	6,938	6,883
Total	R1,387,808	R1,284,966	R1,436,265	R1,624,996	R1,920,002	R2,078,264

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1997	1996				
	January	Total	December	November	October	September
Alabama	31,172	293,084	27,094	22,883	21,529	19,832
Alaska	15,754	150,877	15,528	13,584	12,633	10,943
Arizona	12,196	103,037	10,289	7,516	7,435	6,972
Arkansas	27,778	252,585	23,939	18,699	14,990	17,185
California	177,297	1,721,217	166,541	147,022	138,842	136,901
Colorado	NA	269,006	33,157	22,968	13,807	11,994
Connecticut	15,326	126,488	13,888	10,932	8,990	7,570
Delaware	5,563	54,020	4,253	4,459	4,236	4,104
District of Columbia	5,042	33,644	4,731	2,448	1,382	1,175
Florida	29,299	478,471	29,697	33,713	43,317	48,450
Georgia	45,217	374,882	42,005	36,037	24,688	21,145
Hawaii	239	2,672	220	200	209	213
Idaho	7,546	61,058	6,736	5,424	4,267	3,588
Illinois	171,230	1,104,972	149,698	121,461	65,883	42,305
Indiana	77,926	561,056	64,588	52,504	35,148	26,545
Iowa	38,704	260,140	33,840	27,088	15,392	11,602
Kansas	35,391	275,508	33,619	24,789	13,341	13,359
Kentucky	31,742	207,529	25,797	22,270	12,879	9,256
Louisiana	111,538	1,382,966	108,393	NA	NA	112,202
Maine	778	5,722	601	619	478	291
Maryland	25,264	189,901	22,026	16,766	10,847	9,705
Massachusetts	NA	355,609	36,513	31,385	28,511	24,573
Michigan	135,372	980,555	114,489	91,489	55,831	42,722
Minnesota	51,440	348,671	47,484	36,773	21,889	14,156
Mississippi	18,819	216,524	16,183	16,579	14,771	18,125
Missouri	45,237	286,814	37,323	24,218	12,436	9,811
Montana	8,432	55,584	7,466	5,870	3,712	2,549
Nebraska	18,609	128,297	16,087	10,994	8,322	5,903
Nevada	11,324	122,449	10,973	9,050	8,977	9,476
New Hampshire	2,545	19,031	2,155	1,895	1,144	761
New Jersey	77,588	599,810	76,491	50,284	33,981	29,492
New Mexico	16,137	113,059	13,633	10,437	7,281	6,165
New York	NA	1,121,742	NA	NA	NA	NA
North Carolina	25,277	205,783	23,182	17,666	14,099	11,058
North Dakota	5,328	32,670	4,544	3,497	1,900	1,219
Ohio	133,180	915,035	111,994	87,340	54,686	34,327
Oklahoma	46,819	460,373	42,614	33,004	30,251	33,379
Oregon	18,566	160,626	17,626	15,293	14,369	13,598
Pennsylvania	92,163	684,022	80,392	65,415	41,287	29,057
Rhode Island	8,803	82,041	8,359	7,830	6,999	6,206
South Carolina	16,059	146,434	15,449	12,527	10,815	9,849
South Dakota	5,684	33,594	4,805	3,425	1,677	1,171
Tennessee	33,577	256,053	30,041	23,454	15,496	13,863
Texas	317,196	3,585,201	284,720	261,074	NA	292,962
Utah	18,874	129,651	16,258	12,727	10,013	7,809
Vermont	1,078	7,325	844	698	440	300
Virginia	30,486	230,140	28,550	20,832	12,795	10,655
Washington	27,478	231,767	26,206	21,913	17,092	15,904
West Virginia	14,271	115,622	13,051	10,306	7,541	6,489
Wisconsin	61,232	398,581	50,811	43,208	25,032	16,019
Wyoming	8,992	73,609	8,146	7,382	6,411	4,324
Total	2,331,372	20,005,508	2,086,126	1,731,770	1,377,692	1,252,627

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1996-1997

(Million Cubic Feet) — Continued

State	1996					
	August	July	June	May	April	March
Alabama	19,033	20,226	19,145	21,871	26,181	28,921
Alaska	11,496	10,922	10,983	11,154	12,345	14,192
Arizona	9,510	8,156	7,142	6,125	7,844	9,402
Arkansas	18,927	20,438	19,320	18,556	22,886	23,375
California	155,943	135,936	117,883	123,142	128,773	141,423
Colorado	13,252	13,596	13,134	17,609	26,605	31,433
Connecticut	7,498	6,777	6,410	7,576	11,010	14,113
Delaware	3,910	3,861	4,582	3,277	4,143	5,446
District of Columbia	1,130	1,290	1,405	2,040	3,637	3,927
Florida	47,884	44,211	42,761	48,319	38,647	33,399
Georgia	22,041	21,029	21,094	24,193	31,233	41,352
Hawaii	206	218	221	217	239	236
Idaho	3,040	3,343	3,718	4,537	5,166	6,412
Illinois	39,723	39,693	43,213	64,033	89,998	130,862
Indiana	25,587	26,098	50,104	22,111	48,080	63,463
Iowa	11,684	11,467	12,874	16,431	21,611	29,510
Kansas	19,111	19,640	17,217	15,908	20,931	28,138
Kentucky	8,916	8,396	11,114	10,325	16,374	24,662
Louisiana	123,596	126,054	124,988	117,827	107,234	115,083
Maine	274	242	297	362	444	676
Maryland	10,184	9,222	9,721	11,805	16,183	22,051
Massachusetts	22,967	17,510	19,087	23,463	30,891	37,902
Michigan	39,157	40,199	45,332	67,245	92,332	122,400
Minnesota	12,763	13,247	14,978	20,593	29,687	41,394
Mississippi	20,243	18,928	20,138	17,489	16,692	16,886
Missouri	11,582	10,348	11,539	16,261	26,460	35,528
Montana	2,257	2,160	2,521	3,602	4,720	5,933
Nebraska	6,101	7,356	6,017	7,619	11,193	14,342
Nevada	10,921	11,337	9,821	9,861	8,970	10,309
New Hampshire	742	710	855	1,263	1,793	2,388
New Jersey	26,043	31,482	31,189	38,773	53,135	67,758
New Mexico	7,418	8,331	8,044	6,718	8,983	9,770
New York	NA	NA	66,556	NA	NA	NA
North Carolina	10,992	11,307	11,847	13,086	18,978	21,425
North Dakota	936	885	1,235	2,081	3,180	4,226
Ohio	34,726	34,182	47,450	53,255	80,045	112,355
Oklahoma	39,824	39,995	36,075	33,715	34,411	40,875
Oregon	12,667	11,471	9,484	10,788	10,848	13,315
Pennsylvania	29,652	27,532	31,421	41,429	59,787	84,726
Rhode Island	6,308	4,620	5,342	6,111	6,827	7,151
South Carolina	9,602	9,559	9,690	10,847	13,344	13,721
South Dakota	1,162	1,143	1,480	1,896	2,925	4,581
Tennessee	13,130	12,981	13,507	14,359	22,229	26,961
Texas	310,564	319,000	307,032	318,667	288,584	313,252
Utah	6,534	6,500	5,632	6,981	10,571	12,310
Vermont	273	228	340	498	684	961
Virginia	12,196	12,514	10,792	14,116	18,035	28,025
Washington	15,398	12,847	12,936	16,490	18,363	22,246
West Virginia	5,743	5,830	5,606	7,097	10,302	13,241
Wisconsin	15,491	13,931	16,828	24,514	34,055	48,221
Wyoming	4,322	4,042	4,952	5,627	6,356	6,574
Total	1,312,337	1,284,757	1,305,052	1,419,753	1,662,615	2,030,051

R = Revised Data.
NA = Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. Gas volumes delivered for use as vehicle fuel are included in the annual total for commercial deliveries but not in the monthly components. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" and Form EIA-759, "Monthly Power Plant Report."

Table 20. Average City Gate Price, by State, 1996-1997

(Dollars per Thousand Cubic Feet)

State	1997							
	Total	December	November	October	September	August	July	June
Alabama	3.65	2.60	3.97	4.17	3.83	3.88	4.10	3.86
Alaska	1.81	1.82	1.82	1.78	1.79	1.73	1.74	1.70
Arizona	3.15	2.53	3.48	3.80	3.74	3.16	2.98	3.32
Arkansas	3.23	3.19	3.44	3.61	2.87	3.28	2.78	2.77
California	2.98	2.65	[R]3.30	3.18	2.74	2.79	3.72	2.67
Colorado	NA	2.99	NA	NA	NA	NA	NA	NA
Connecticut	NA	4.73	3.87	NA	5.29	5.33	4.55	4.76
Delaware	3.69	2.40	5.73	5.23	1.04	4.07	3.51	3.44
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.97	3.85	4.45	4.64	3.82	3.31	3.41	3.50
Georgia	3.99	3.67	4.04	4.03	5.29	3.90	3.96	4.37
Hawaii	NA	6.23	NA	6.09	6.11	6.35	6.59	5.46
Idaho	2.12	1.79	2.07	2.01	2.17	2.50	2.16	2.83
Illinois	3.28	2.92	3.72	4.07	3.78	3.37	2.81	3.11
Indiana	NA	NA	3.21	NA	3.15	2.87	2.54	2.35
Iowa	4.05	4.44	4.84	4.99	5.39	5.86	6.62	4.74
Kansas	NA	NA	4.29	3.61	3.47	3.11	2.88	3.02
Kentucky	NA	4.07	4.28	NA	3.57	3.62	3.68	3.69
Louisiana	NA	2.85	3.73	NA	3.01	2.56	2.58	2.63
Maine	3.84	3.10	2.72	4.11	3.79	4.43	4.34	4.53
Maryland	4.01	3.37	4.22	4.69	5.77	6.05	5.81	4.34
Massachusetts	3.95	4.03	4.14	4.52	4.58	4.91	5.29	5.61
Michigan	2.99	3.19	3.51	3.12	2.87	2.63	2.54	2.69
Minnesota	3.67	4.06	4.52	4.26	4.02	2.97	3.92	3.49
Mississippi	NA	3.31	3.83	NA	NA	NA	NA	2.95
Missouri	NA	3.13	3.91	NA	5.08	4.79	4.61	5.31
Montana	3.16	2.51	3.15	4.47	3.76	3.96	3.63	3.91
Nebraska	4.24	5.31	6.30	5.76	7.03	5.51	4.96	4.09
Nevada	3.39	2.84	3.71	3.46	4.12	3.99	3.87	3.64
New Hampshire	NA	3.72	4.02	3.95	NA	4.45	4.28	4.34
New Jersey	4.17	3.77	4.49	4.74	4.22	4.41	4.29	4.21
New Mexico	2.53	2.31	2.85	2.59	2.62	2.18	2.13	2.13
New York	NA	NA	NA	NA	3.42	NA	NA	NA
North Carolina	3.97	3.72	4.09	3.95	4.13	3.96	3.90	3.84
North Dakota	3.38	3.01	4.01	3.73	3.53	3.36	3.14	3.17
Ohio	5.16	4.35	4.66	5.09	4.91	5.51	7.16	6.17
Oklahoma	3.12	3.32	3.19	3.04	2.58	2.66	3.23	2.66
Oregon	2.58	2.42	2.73	2.48	3.12	4.01	3.45	3.00
Pennsylvania	4.06	3.71	4.32	4.60	4.56	4.36	4.03	4.90
Rhode Island	4.49	4.02	4.46	4.53	5.71	6.64	7.53	6.42
South Carolina	3.81	3.72	4.13	4.15	4.03	3.86	3.74	3.78
South Dakota	3.66	3.46	3.68	3.53	4.03	4.26	4.40	4.58
Tennessee	NA	3.63	2.02	4.33	2.78	2.51	2.71	NA
Texas	3.67	3.97	3.86	3.58	3.21	3.11	3.23	3.01
Utah	2.79	3.46	3.07	2.64	2.81	3.02	2.83	2.35
Vermont	2.33	2.64	2.77	2.34	2.29	2.33	2.41	2.58
Virginia	4.13	3.65	4.15	4.83	4.69	4.47	3.94	3.77
Washington	NA	NA	NA	NA	NA	NA	NA	2.28
West Virginia	3.16	2.99	3.07	3.66	3.53	3.89	1.85	3.90
Wisconsin	NA	4.93	3.75	3.91	4.52	4.75	3.68	NA
Wyoming	3.13	3.20	3.61	3.02	[R]3.35	2.90	2.94	2.85
Total	3.61	3.48	[R]3.86	3.93	3.60	3.45	3.61	3.44

See footnotes at end of table.

Table 20. Average City Gate Price, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1997					1996		
	May	April	March	February	January	Total	December	November
Alabama	3.54	3.16	3.20	4.02	4.44	3.48	4.07	3.61
Alaska	1.78	1.81	1.84	1.80	1.88	1.58	1.59	1.60
Arizona	3.18	2.61	2.22	2.85	4.21	2.78	4.14	3.32
Arkansas	2.59	2.48	2.46	3.16	4.18	2.76	3.68	3.04
California	2.55	2.30	2.25	3.21	4.14	2.59	3.81	3.00
Colorado	NA	2.30	NA	NA	NA	2.70	4.91	3.13
Connecticut	4.81	4.94	4.82	6.00	5.82	5.11	6.15	4.60
Delaware	3.20	3.00	4.16	5.09	6.92	3.68	4.96	3.66
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.09	3.62	4.04	4.56	4.61	3.73	4.80	3.90
Georgia	3.20	3.08	3.31	4.15	4.80	3.77	4.65	3.71
Hawaii	6.47	7.21	6.50	7.73	6.16	6.05	6.67	6.30
Idaho	2.98	2.08	1.85	2.13	2.37	2.24	2.30	2.10
Illinois	3.06	2.48	2.43	3.30	3.79	3.27	4.05	3.25
Indiana	2.32	2.07	2.31	3.20	4.08	3.09	3.83	3.16
Iowa	3.49	2.83	3.05	3.66	3.98	3.47	4.09	3.46
Kansas	2.85	2.38	2.67	3.67	4.37	3.05	3.77	3.38
Kentucky	3.30	3.62	3.40	3.47	4.17	3.41	4.40	3.59
Louisiana	2.40	2.36	2.44	3.49	3.84	3.13	4.30	3.24
Maine	4.69	3.43	4.26	3.52	4.96	4.30	4.34	3.64
Maryland	4.15	3.15	3.32	3.75	4.14	4.02	4.65	3.75
Massachusetts	2.86	3.26	2.97	4.12	4.30	3.98	4.82	3.72
Michigan	2.60	2.56	2.66	3.28	3.98	2.90	3.73	3.07
Minnesota	2.64	2.41	2.70	3.48	4.51	3.07	3.78	3.19
Mississippi	2.43	2.89	2.82	3.48	4.25	3.27	4.34	3.14
Missouri	3.95	3.11	2.78	3.50	4.05	3.25	4.03	3.20
Montana	2.28	3.09	2.70	3.50	3.73	3.03	3.46	3.04
Nebraska	3.11	2.28	3.02	3.75	4.42	3.07	3.99	3.11
Nevada	2.72	2.81	2.96	3.37	4.13	3.10	3.97	3.46
New Hampshire	3.66	3.15	3.99	4.42	4.93	4.20	5.01	4.15
New Jersey	3.86	3.15	3.99	4.20	4.70	3.84	4.82	3.83
New Mexico	2.04	1.91	1.38	2.39	3.85	1.99	3.60	2.68
New York	NA	NA	NA	NA	NA	3.36	4.38	3.03
North Carolina	3.83	3.40	3.51	4.34	4.36	3.74	4.26	3.48
North Dakota	2.95	2.50	2.43	3.59	4.22	2.94	3.80	3.10
Ohio	5.96	5.79	5.01	5.41	5.24	4.37	4.79	4.95
Oklahoma	2.22	2.22	3.09	3.68	3.52	2.56	2.84	2.44
Oregon	3.02	1.95	1.92	2.35	2.95	2.42	2.95	2.41
Pennsylvania	4.30	3.48	3.48	4.12	4.22	3.77	4.24	3.92
Rhode Island	4.81	3.46	3.16	4.26	4.85	4.41	5.20	4.04
South Carolina	3.54	3.25	2.95	3.97	4.20	3.90	4.60	3.76
South Dakota	3.75	3.02	2.78	3.95	4.10	3.19	3.98	3.37
Tennessee	2.96	2.51	NA	3.73	4.10	4.04	6.64	3.71
Texas	2.50	2.38	3.01	4.16	4.70	3.22	4.21	3.49
Utah	1.93	2.15	2.69	2.76	2.65	2.25	2.39	3.32
Vermont	2.77	2.39	2.26	2.16	1.57	2.74	2.67	2.49
Virginia	5.12	3.28	3.49	3.96	5.04	3.89	5.13	3.69
Washington	2.53	2.70	1.89	2.62	3.45	2.44	3.14	2.50
West Virginia	3.02	2.88	2.17	3.54	3.61	3.36	3.53	3.25
Wisconsin	3.39	NA	2.89	3.54	4.13	3.43	4.12	3.61
Wyoming	1.64	2.48	3.19	3.61	4.22	2.36	2.55	2.18
Total	3.16	2.94	3.06	3.78	4.27	3.34	4.18	3.46

See footnotes at end of table.

Table 20. Average City Gate Price, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1996							
	October	September	August	July	June	May	April	March
Alabama	3.44	3.62	4.11	4.04	3.86	3.57	3.27	3.15
Alaska	1.55	1.57	1.54	1.54	1.57	1.56	1.58	1.60
Arizona	2.66	3.02	3.58	2.94	2.57	2.46	2.05	1.97
Arkansas	2.46	2.29	2.59	2.76	2.82	2.59	2.50	2.57
California	2.37	2.34	2.77	2.42	2.56	2.14	2.22	2.42
Colorado	2.58	2.49	2.29	2.30	2.40	2.50	2.94	2.16
Connecticut	4.46	4.65	4.42	4.75	5.03	4.94	5.22	4.66
Delaware	2.94	3.03	3.80	4.22	3.44	3.18	3.75	4.20
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.28	3.03	3.54	3.57	3.31	3.39	3.97	3.83
Georgia	3.17	3.31	4.00	4.22	3.68	3.74	3.51	3.82
Hawaii	6.33	6.00	6.05	6.34	6.27	6.32	5.74	5.53
Idaho	2.11	2.72	2.48	5.26	3.39	2.28	2.21	2.12
Illinois	2.65	2.80	3.25	3.69	3.12	2.83	2.93	3.49
Indiana	2.49	2.04	2.70	3.30	3.10	2.56	2.90	3.06
Iowa	3.12	4.28	7.96	7.45	4.61	4.19	3.13	2.82
Kansas	2.91	2.63	2.88	3.24	3.53	3.24	3.24	2.70
Kentucky	2.94	3.16	3.04	3.07	3.08	3.83	3.50	3.29
Louisiana	2.31	2.26	2.69	3.01	2.72	2.65	3.06	3.29
Maine	3.93	3.91	4.35	5.04	5.51	5.61	5.34	4.01
Maryland	3.65	5.61	5.85	6.04	5.63	4.35	4.01	3.70
Massachusetts	3.60	5.36	5.68	5.53	6.05	4.37	3.97	3.32
Michigan	2.49	2.31	2.98	2.87	2.64	2.69	2.80	3.11
Minnesota	2.65	2.91	3.32	4.14	2.88	2.82	2.73	2.79
Mississippi	2.67	2.59	2.89	3.10	2.90	2.70	3.37	3.36
Missouri	3.47	4.14	5.13	4.82	4.51	3.86	3.20	2.61
Montana	3.08	3.24	4.13	3.60	3.05	2.81	3.18	2.52
Nebraska	2.93	2.85	4.83	3.30	3.50	3.41	3.04	2.71
Nevada	2.96	3.26	3.83	3.48	3.36	3.17	2.90	2.45
New Hampshire	3.19	3.86	4.47	5.03	4.64	4.17	4.09	4.06
New Jersey	3.25	3.69	3.71	3.93	3.88	4.55	3.78	3.23
New Mexico	1.88	1.66	2.07	1.60	1.40	1.22	1.18	1.40
New York	2.86	2.61	2.91	3.13	3.17	3.18	3.40	3.50
North Carolina	3.22	3.68	3.94	3.75	3.75	3.69	3.95	3.60
North Dakota	2.49	2.54	3.44	2.90	2.78	2.64	2.62	2.45
Ohio	5.06	6.12	5.58	4.53	8.17	4.87	4.06	3.90
Oklahoma	1.99	2.53	2.65	2.51	2.40	2.61	2.53	2.58
Oregon	2.24	2.98	3.15	3.89	2.11	2.40	2.27	2.19
Pennsylvania	3.85	4.39	4.86	5.13	4.62	3.90	4.25	3.32
Rhode Island	3.91	5.94	6.51	7.46	6.42	5.06	3.53	3.85
South Carolina	3.26	3.53	3.87	4.01	3.49	3.96	3.96	3.94
South Dakota	2.87	3.40	6.37	4.74	3.96	2.92	2.63	2.84
Tennessee	2.92	3.40	3.70	3.48	3.67	3.72	3.28	3.29
Texas	2.73	2.87	2.97	3.04	2.91	2.81	3.13	3.05
Utah	1.66	2.22	2.08	2.15	2.12	1.93	1.98	2.34
Vermont	2.18	2.36	2.69	3.68	3.01	2.66	3.10	2.83
Virginia	3.34	3.40	4.42	4.52	4.93	4.00	3.38	3.58
Washington	1.94	2.71	3.21	3.57	3.39	2.30	2.23	1.99
West Virginia	3.57	3.74	4.43	3.85	3.49	3.54	3.21	3.36
Wisconsin	3.17	4.11	4.98	4.80	5.09	3.43	3.48	2.88
Wyoming	1.91	2.84	2.92	2.44	2.40	2.12	2.32	3.07
Total	2.94	3.05	3.46	3.49	3.41	3.18	3.22	3.17

R = Revised Data.
NA = Not Available.
— = Not Applicable.

Notes: Geographic coverage is the 50 States and the District of Columbia. Prices in this table represent the average price of natural gas by State at the point where the gas transferred from a pipeline to a local distribution company within the State. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet)

State	1997							
	Total	December	November	October	September	August	July	June
Alabama	6.88	7.32	7.99	11.10	11.62	11.70	11.26	10.45
Alaska	3.78	3.62	3.69	[R]3.75	3.94	4.66	4.43	4.27
Arizona	7.65	7.59	9.17	11.33	9.10	10.54	10.05	9.59
Arkansas	6.57	6.23	6.40	8.66	9.53	9.25	8.64	8.23
California	6.78	7.20	7.49	7.81	7.42	7.57	7.05	7.71
Colorado	NA	3.87	NA	NA	NA	NA	NA	NA
Connecticut	NA	9.18	10.42	NA	11.58	11.48	11.35	10.71
Delaware	8.42	8.11	8.76	10.81	11.91	11.94	11.69	10.13
District of Columbia	9.47	9.45	11.01	11.27	11.34	8.40	8.46	8.28
Florida	8.59	12.58	13.89	14.79	14.96	15.05	14.65	14.15
Georgia	6.58	6.11	5.95	8.02	10.57	11.75	11.87	12.38
Hawaii	21.71	20.40	[R]20.84	21.04	21.33	21.61	21.17	21.51
Idaho	NA	4.98	5.28	5.66	NA	6.51	6.16	5.81
Illinois	5.81	5.39	5.65	6.07	8.00	7.87	7.83	7.93
Indiana	NA	NA	5.83	NA	8.77	9.40	10.18	8.85
Iowa	6.10	6.09	6.52	7.80	11.19	10.25	9.53	8.08
Kansas	NA	NA	6.55	7.74	8.54	8.27	7.54	8.03
Kentucky	NA	6.49	6.19	NA	7.94	9.22	9.15	7.56
Louisiana	NA	6.38	7.96	NA	9.42	8.76	8.41	8.45
Maine	8.47	8.36	8.21	7.80	9.46	9.25	9.69	8.39
Maryland	8.21	7.61	8.71	9.91	10.72	11.35	10.88	9.62
Massachusetts	NA	10.09	9.78	8.58	10.09	10.39	9.86	8.32
Michigan	4.92	4.93	5.08	5.74	6.81	7.26	6.88	6.15
Minnesota	5.49	5.17	6.12	6.58	7.62	7.17	7.06	6.36
Mississippi	NA	5.67	6.70	8.29	NA	NA	NA	7.36
Missouri	NA	6.45	6.68	NA	9.59	9.38	8.77	7.53
Montana	5.04	5.33	5.42	5.84	6.73	6.98	7.46	6.10
Nebraska	5.75	6.19	6.19	7.53	7.90	7.72	7.43	6.32
Nevada	6.29	6.20	6.74	7.67	7.95	7.99	7.58	7.31
New Hampshire	NA	8.46	8.87	7.47	NA	9.17	9.01	7.59
New Jersey	7.85	7.48	7.63	8.52	9.80	9.82	9.62	9.38
New Mexico	5.26	3.61	4.47	8.32	10.84	11.07	11.66	40.76
New York	NA	NA	NA	NA	NA	NA	NA	NA
North Carolina	8.50	8.05	8.23	11.20	13.11	13.15	12.42	10.31
North Dakota	4.93	5.57	5.67	6.26	7.54	7.02	7.05	6.37
Ohio	6.58	6.20	6.31	7.40	8.29	8.46	8.71	7.55
Oklahoma	6.08	5.56	6.17	8.93	9.28	9.36	8.95	8.14
Oregon	6.11	5.89	6.15	6.68	7.88	8.12	7.53	7.21
Pennsylvania	8.15	7.76	7.94	9.01	11.12	11.50	11.78	10.15
Rhode Island	9.61	8.97	9.74	10.64	12.10	12.53	12.30	10.90
South Carolina	6.61	7.98	8.00	9.53	10.15	10.24	9.73	8.96
South Dakota	5.75	5.94	6.17	6.98	9.10	8.07	8.39	7.83
Tennessee	NA	6.81	[R]6.89	8.33	8.81	9.00	8.92	NA
Texas	6.27	5.67	6.50	8.07	8.67	8.91	8.38	7.83
Utah	5.10	5.25	5.66	4.62	5.55	5.94	5.61	5.67
Vermont	6.41	6.21	6.43	7.06	8.41	8.78	8.51	7.35
Virginia	7.88	8.42	9.02	11.07	12.27	12.45	12.40	10.70
Washington	NA	NA	NA	NA	NA	NA	NA	5.82
West Virginia	6.21	6.54	6.59	7.81	8.89	9.58	10.39	8.47
Wisconsin	5.74	6.37	7.24	6.07	6.92	6.99	6.58	6.68
Wyoming	4.27	6.52	5.19	5.54	6.09	6.31	5.83	5.25
Total	6.89	6.54	[R]6.82	[R]7.55	8.55	8.71	8.46	8.13

See footnotes at end of table.

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1997					1996		
	May	April	March	February	January	Total	December	November
Alabama	8.69	9.21	8.65	7.61	7.62	7.22	7.36	7.83
Alaska	3.88	3.75	R3.75	R3.67	3.63	3.42	3.32	3.37
Arizona	8.68	7.93	7.03	6.81	6.62	7.52	6.85	7.43
Arkansas	6.93	6.40	6.14	6.09	6.48	5.92	6.64	6.05
California	6.38	6.18	6.42	6.27	6.27	6.44	6.20	6.41
Colorado	NA	3.92	NA	NA	NA	4.39	3.94	4.31
Connecticut	10.71	10.07	9.66	10.96	10.41	10.08	10.49	10.26
Delaware	8.93	8.25	7.94	7.75	7.54	7.12	7.59	7.90
District of Columbia	9.18	8.74	8.57	9.36	9.81	9.19	10.22	9.18
Florida	13.36	12.89	12.12	10.69	10.57	10.74	10.47	11.98
Georgia	10.42	6.23	8.88	7.47	6.53	6.69	6.75	5.83
Hawaii	21.78	21.30	22.29	25.55	21.14	19.81	19.51	20.71
Idaho	5.26	5.10	4.95	4.80	4.81	5.20	4.89	5.22
Illinois	5.43	5.10	5.28	6.50	6.15	5.28	5.13	5.05
Indiana	7.23	6.70	6.28	6.06	5.82	5.54	5.65	5.52
Iowa	6.21	5.24	5.58	6.01	5.57	5.49	5.71	5.30
Kansas	6.24	6.04	5.98	6.58	6.33	5.59	5.75	5.47
Kentucky	6.67	6.84	6.32	6.02	5.87	5.54	6.10	5.73
Louisiana	7.52	6.09	6.28	6.85	7.34	6.76	7.30	7.75
Maine	7.95	9.05	8.65	8.66	8.10	7.84	8.53	8.05
Maryland	8.26	8.14	7.31	7.64	7.68	7.60	7.81	7.30
Massachusetts	7.49	9.90	9.70	9.62	NA	8.88	9.53	9.52
Michigan	5.10	4.92	4.82	4.94	5.04	4.96	5.07	5.01
Minnesota	5.32	4.66	4.81	5.81	6.50	5.46	6.18	5.47
Mississippi	6.91	6.42	5.49	5.61	6.17	5.72	6.58	6.28
Missouri	5.88	5.31	5.70	6.50	6.67	5.97	6.02	5.94
Montana	5.00	4.73	4.69	4.49	4.47	4.86	4.59	4.89
Nebraska	4.65	4.91	4.86	5.75	6.21	4.88	5.35	5.01
Nevada	6.63	6.16	5.78	5.76	5.54	6.19	5.69	6.05
New Hampshire	6.62	6.62	9.36	9.24	9.10	7.40	8.41	8.67
New Jersey	8.30	7.71	7.42	7.47	7.67	7.16	7.02	7.29
New Mexico	6.53	8.78	4.46	5.09	5.81	4.47	3.72	3.80
New York	NA	NA	NA	NA	NA	8.90	NA	NA
North Carolina	8.58	8.68	9.59	8.76	8.77	7.59	7.90	8.21
North Dakota	5.10	4.10	4.14	4.32	4.43	4.54	4.34	3.84
Ohio	6.74	6.60	6.51	6.83	6.72	5.90	6.29	6.56
Oklahoma	6.80	5.96	5.66	5.79	6.44	5.64	5.32	5.99
Oregon	6.38	6.04	5.85	5.76	5.73	6.31	5.95	6.30
Pennsylvania	8.88	8.41	8.05	8.05	7.64	7.38	7.60	7.80
Rhode Island	9.70	9.67	9.39	9.18	8.79	8.49	8.68	9.36
South Carolina	8.09	8.36	9.24	8.69	8.67	7.41	7.85	7.50
South Dakota	5.92	4.95	4.83	5.09	5.50	5.25	5.39	5.41
Tennessee	6.49	6.39	NA	7.00	6.84	6.26	6.17	5.93
Texas	6.42	5.66	5.56	6.05	6.35	5.89	6.14	5.34
Utah	5.80	4.16	5.14	4.89	4.91	4.47	4.75	4.81
Vermont	6.52	6.23	6.08	6.04	6.04	6.40	6.19	6.42
Virginia	9.05	8.12	7.56	8.07	8.87	7.94	8.48	8.26
Washington	5.69	5.68	5.48	5.40	5.39	5.65	5.44	5.60
West Virginia	7.26	6.91	6.80	6.67	6.68	7.02	6.80	7.01
Wisconsin	5.13	6.31	5.89	6.61	7.08	6.04	6.87	6.25
Wyoming	3.23	4.73	4.01	3.91	3.51	4.26	3.97	3.75
Total	6.78	6.53	6.49	6.75	6.71	6.34	6.47	6.37

See footnotes at end of table.

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1996							
	October	September	August	July	June	May	April	March
Alabama	9.71	10.63	10.98	10.77	10.56	8.10	6.89	6.84
Alaska	3.46	3.77	3.82	3.87	3.71	3.53	3.40	3.34
Arizona	9.28	10.06	10.40	10.02	9.35	8.70	7.59	6.99
Arkansas	7.06	7.75	8.30	8.44	7.88	6.75	5.46	5.42
California	6.67	5.94	6.85	8.28	6.99	6.39	6.01	6.21
Colorado	4.99	6.38	6.74	6.23	5.18	4.49	4.27	4.16
Connecticut	10.58	10.65	10.69	10.34	9.94	9.62	10.06	9.80
Delaware	9.08	10.58	10.19	10.27	8.92	7.83	6.75	6.42
District of Columbia	10.25	10.78	7.82	8.11	9.37	10.22	10.58	9.31
Florida	13.01	13.39	13.65	12.96	12.84	11.82	10.31	9.94
Georgia	8.51	10.32	10.50	10.98	11.40	10.48	7.33	5.56
Hawaii	20.95	20.47	20.50	20.81	20.12	20.44	19.20	19.12
Idaho	5.60	6.11	6.47	6.35	5.71	5.39	5.29	5.07
Illinois	5.93	8.14	9.26	8.43	8.21	6.76	5.51	4.91
Indiana	6.55	8.37	8.68	8.47	7.81	6.50	5.71	5.05
Iowa	6.66	9.16	12.66	8.87	7.86	6.18	5.08	4.76
Kansas	6.48	7.09	8.27	7.06	7.60	6.74	5.64	5.26
Kentucky	6.62	7.85	8.39	8.10	7.50	7.21	5.11	5.09
Louisiana	8.31	8.41	8.66	9.30	8.53	8.19	7.01	5.64
Maine	7.04	8.23	8.90	8.57	8.06	7.62	8.27	7.88
Maryland	8.45	10.11	10.95	10.87	9.91	8.57	7.35	7.15
Massachusetts	7.54	9.30	9.56	9.10	7.89	6.06	9.48	9.08
Michigan	5.58	6.55	7.32	7.18	6.55	5.20	4.79	4.44
Minnesota	5.48	6.67	7.67	7.50	6.71	5.77	5.38	4.97
Mississippi	6.35	6.35	6.40	6.47	6.36	6.16	5.64	5.54
Missouri	7.58	9.53	10.20	9.53	8.45	6.87	5.71	5.47
Montana	5.53	6.18	6.64	6.30	5.29	4.91	4.68	4.62
Nebraska	5.59	6.74	7.02	6.76	5.95	5.22	4.68	4.46
Nevada	7.40	7.91	8.13	7.66	7.04	6.68	6.22	5.86
New Hampshire	7.05	8.26	8.58	8.45	7.29	6.18	5.94	7.37
New Jersey	7.66	8.73	8.72	8.96	8.73	7.15	7.34	6.84
New Mexico	5.80	8.53	7.36	4.61	4.37	11.89	4.79	4.72
New York	NA	NA	NA	11.08	10.03	8.80	8.39	8.12
North Carolina	9.93	12.45	12.81	11.13	11.48	9.07	7.31	7.54
North Dakota	4.66	6.20	7.43	7.25	6.58	5.04	4.59	4.07
Ohio	7.29	8.41	8.98	8.10	7.07	6.34	5.39	5.35
Oklahoma	8.12	9.14	9.58	9.30	8.54	6.96	5.28	5.16
Oregon	7.01	7.85	8.28	7.81	6.99	6.56	6.40	6.23
Pennsylvania	8.60	10.61	10.70	10.46	9.10	8.16	7.30	6.68
Rhode Island	9.90	11.21	11.29	11.05	9.82	8.39	8.48	8.06
South Carolina	8.21	9.27	9.72	9.58	8.85	7.90	6.78	7.47
South Dakota	5.94	7.62	11.79	8.33	6.65	5.65	5.21	4.36
Tennessee	7.07	8.46	8.77	8.44	8.30	7.25	6.62	6.43
Texas	7.07	7.86	8.37	8.00	7.33	6.98	6.13	5.44
Utah	3.79	4.15	5.19	4.99	5.40	4.59	3.90	4.94
Vermont	7.21	8.41	8.92	8.73	7.49	6.59	6.24	6.09
Virginia	9.78	11.94	12.50	12.40	10.73	8.78	7.53	6.88
Washington	6.09	6.87	7.32	6.72	6.12	5.74	5.64	5.46
West Virginia	7.55	9.22	10.24	9.73	9.17	7.52	6.91	6.71
Wisconsin	5.02	6.01	6.73	6.71	6.03	5.58	5.92	5.89
Wyoming	3.95	5.29	5.68	5.71	5.02	4.58	4.42	4.29
Total	7.05	7.99	8.73	8.64	7.83	6.84	6.27	5.93

R = Revised Data.
NA = Not Available.

Notes: Data for 1996 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet)

State	1997							
	Total	December	November	October	September	August	July	June
Alabama	5.52	6.61	6.83	7.46	7.59	7.50	7.60	7.22
Alaska	2.45	2.55	2.53	2.52	2.28	2.09	2.24	2.15
Arizona	5.28	5.56	5.83	5.83	5.82	5.34	5.22	5.21
Arkansas	5.18	5.12	5.45	5.75	5.54	5.18	5.32	5.37
California	6.43	7.04	7.09	6.70	5.88	5.00	5.90	6.32
Colorado	NA	3.62	NA	NA	NA	NA	NA	NA
Connecticut	NA	6.78	7.88	NA	6.59	5.22	5.90	6.35
Delaware	6.78	6.65	6.97	7.56	7.28	8.64	7.91	7.39
District of Columbia	8.05	8.11	8.78	8.08	8.11	7.20	6.92	7.03
Florida	5.50	7.31	7.41	7.13	6.94	6.62	6.98	6.93
Georgia	5.74	5.66	5.46	5.98	6.28	7.00	7.60	7.68
Hawaii	NA	14.02	NA	14.75	14.62	15.09	15.07	15.37
Idaho	4.47	4.34	4.66	4.73	4.73	4.83	4.76	4.78
Illinois	5.32	5.24	5.28	5.82	6.24	6.10	5.68	5.55
Indiana	NA	NA	4.92	4.93	6.05	6.07	6.50	6.28
Iowa	5.08	5.20	5.53	5.97	7.44	6.44	5.68	6.05
Kansas	NA	NA	6.00	5.92	5.66	4.90	4.95	4.90
Kentucky	NA	5.92	6.03	NA	5.90	5.95	6.20	6.00
Louisiana	5.84	5.94	7.10	7.30	6.20	5.94	5.39	6.19
Maine	7.70	7.79	7.62	6.84	7.61	7.16	7.12	6.94
Maryland	6.46	6.35	7.11	7.18	6.89	6.22	6.16	6.52
Massachusetts	6.86	8.03	7.74	5.63	5.45	5.53	5.34	5.04
Michigan	4.63	4.79	4.95	5.40	5.97	5.96	5.81	5.44
Minnesota	4.68	4.40	5.26	5.09	4.99	4.41	4.44	4.50
Mississippi	NA	5.08	5.58	5.98	NA	NA	NA	4.79
Missouri	NA	6.16	6.01	NA	5.70	5.19	5.11	4.86
Montana	4.65	5.24	3.81	5.39	4.39	5.73	5.62	5.39
Nebraska	4.79	5.34	5.40	5.26	4.33	3.76	3.56	5.88
Nevada	5.13	5.36	5.47	5.48	5.22	5.22	5.11	5.07
New Hampshire	NA	7.79	7.83	6.15	NA	6.47	6.49	6.20
New Jersey	5.87	4.93	5.30	4.91	4.27	4.43	4.32	4.38
New Mexico	4.12	3.59	3.90	4.67	5.12	5.35	5.47	7.67
New York	NA	NA	NA	NA	NA	NA	NA	NA
North Carolina	6.56	6.96	6.70	6.18	6.46	6.44	6.44	5.99
North Dakota	4.33	4.92	5.11	4.97	5.15	4.51	4.96	4.54
Ohio	6.11	5.94	6.05	6.22	6.54	6.82	6.76	7.39
Oklahoma	5.02	5.37	5.32	5.54	5.02	4.94	4.93	5.15
Oregon	4.64	4.67	4.74	4.66	4.82	4.89	4.76	4.79
Pennsylvania	7.26	6.90	6.89	7.26	7.68	7.92	8.12	8.13
Rhode Island	8.21	7.98	8.02	8.00	8.77	9.12	8.96	8.77
South Carolina	5.27	6.84	6.75	6.10	3.26	6.03	5.90	5.92
South Dakota	4.71	5.06	5.22	5.50	6.51	5.22	5.44	6.09
Tennessee	NA	6.29	[R]6.12	6.09	6.07	5.81	5.91	NA
Texas	4.61	4.84	5.08	4.76	4.84	4.40	4.51	4.80
Utah	3.91	4.39	4.65	3.78	3.99	4.02	3.82	3.60
Vermont	5.18	5.15	4.99	4.91	5.01	5.43	5.42	5.41
Virginia	5.60	6.53	6.42	6.56	6.60	6.58	6.68	6.10
Washington	NA	NA	NA	NA	NA	NA	NA	4.66
West Virginia	5.30	6.20	6.30	7.01	7.63	8.23	8.53	7.78
Wisconsin	4.46	5.52	6.04	4.88	4.85	4.71	4.30	4.74
Wyoming	NA	5.56	4.62	5.02	NA	4.31	4.11	3.93
Total	5.75	5.65	[R]5.80	5.72	5.62	5.44	5.48	5.68

See footnotes at end of table.

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1997					1996		
	May	April	March	February	January	Total	December	November
Alabama	6.85	7.11	7.26	6.92	6.97	6.19	6.52	6.31
Alaska	2.23	2.37	2.53	2.52	2.63	2.32	2.39	2.34
Arizona	5.19	5.09	5.27	5.11	5.01	5.01	4.99	5.02
Arkansas	5.14	4.90	4.86	5.07	5.42	4.68	5.59	5.02
California	5.33	6.10	6.71	6.98	7.18	5.94	6.36	5.49
Colorado	NA	3.29	NA	NA	NA	3.67	3.32	3.41
Connecticut	7.00	7.24	7.66	8.45	8.09	7.41	7.90	7.84
Delaware	6.82	6.61	6.47	6.54	6.33	5.82	6.19	5.96
District of Columbia	6.87	10.06	7.61	7.97	8.24	7.37	8.01	8.02
Florida	6.89	6.74	6.96	6.84	6.56	6.45	6.47	6.43
Georgia	6.30	5.57	7.53	6.66	6.44	5.89	6.33	5.72
Hawaii	15.25	15.34	15.72	15.07	14.72	14.40	15.13	15.31
Idaho	4.66	4.62	4.36	4.29	4.30	4.56	4.34	4.63
Illinois	4.93	4.64	4.97	5.68	5.89	4.92	5.20	4.83
Indiana	6.15	5.97	5.37	5.43	5.14	4.67	4.98	4.66
Iowa	4.88	4.34	4.81	5.32	4.96	4.59	5.16	5.09
Kansas	5.25	5.17	5.46	6.25	6.12	4.61	4.90	4.56
Kentucky	5.53	5.85	5.72	5.80	5.61	5.09	5.67	5.50
Louisiana	6.08	5.08	5.78	6.48	7.08	6.08	6.87	6.58
Maine	6.67	8.28	8.10	8.12	7.75	7.09	7.87	7.58
Maryland	6.05	5.76	6.11	6.72	6.60	6.07	6.61	5.69
Massachusetts	5.44	7.94	8.14	8.28	7.97	6.74	7.91	7.30
Michigan	4.82	4.63	4.71	4.80	4.99	4.75	4.97	4.85
Minnesota	3.99	3.89	4.16	5.23	6.02	4.63	5.66	4.61
Mississippi	5.08	4.93	4.61	5.17	5.61	5.22	5.73	4.86
Missouri	4.39	4.55	5.07	6.47	6.58	5.35	5.83	5.32
Montana	4.81	4.52	4.57	4.45	4.46	4.64	4.49	4.68
Nebraska	5.00	3.91	4.23	5.24	5.91	4.47	5.38	4.03
Nevada	5.12	5.18	4.95	4.86	4.97	4.90	4.88	4.89
New Hampshire	5.86	6.52	8.67	8.81	8.41	6.74	7.75	7.78
New Jersey	5.77	5.57	6.99	7.10	6.73	6.14	6.31	5.71
New Mexico	4.23	4.63	3.54	4.37	5.36	3.35	3.34	3.20
New York	NA	NA	NA	NA	NA	6.88	NA	NA
North Carolina	6.02	6.50	7.85	7.67	7.52	6.18	6.78	6.67
North Dakota	4.25	3.66	3.65	4.09	4.24	3.91	4.06	3.06
Ohio	6.08	6.18	6.03	6.74	6.45	5.38	5.82	6.15
Oklahoma	4.97	4.81	5.26	5.75	6.40	4.70	5.04	4.80
Oregon	4.62	4.61	4.57	4.55	4.56	4.85	4.65	4.82
Pennsylvania	7.99	7.70	7.37	7.55	7.07	6.44	6.86	6.61
Rhode Island	8.07	8.46	8.17	8.20	7.88	7.50	7.89	7.78
South Carolina	5.92	6.74	7.20	7.54	7.46	6.26	7.01	6.37
South Dakota	4.77	4.04	3.96	4.28	4.61	4.20	4.34	4.20
Tennessee	5.39	5.01	NA	6.19	6.51	5.72	5.78	5.32
Texas	4.60	4.29	4.42	5.28	6.00	4.27	5.38	4.58
Utah	3.37	3.09	3.81	3.75	3.81	3.38	3.69	3.80
Vermont	5.58	5.10	5.15	5.21	5.24	5.24	5.20	5.11
Virginia	6.31	6.29	5.93	6.61	6.97	5.93	6.74	5.94
Washington	4.83	4.21	4.71	4.72	4.65	4.80	4.76	4.79
West Virginia	6.81	6.42	6.22	6.13	6.09	6.03	5.85	6.26
Wisconsin	3.83	5.07	5.03	5.60	6.14	4.83	5.73	4.99
Wyoming	2.65	3.59	3.46	3.53	3.41	3.68	3.08	2.60
Total	5.38	5.45	5.68	6.04	6.08	5.40	5.78	5.40

See footnotes at end of table.

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1996							
	October	September	August	July	June	May	April	March
Alabama	6.60	6.81	6.88	6.82	6.99	6.41	6.08	6.21
Alaska	2.23	2.02	2.03	2.15	2.22	2.27	2.40	2.37
Arizona	5.16	5.19	5.15	5.10	5.00	4.96	5.01	4.98
Arkansas	4.72	4.67	4.86	4.98	5.12	4.85	4.48	4.35
California	5.68	5.46	5.25	5.50	5.42	5.55	5.99	6.60
Colorado	3.69	3.93	4.03	3.91	3.79	3.64	3.69	3.84
Connecticut	6.19	5.95	5.70	5.89	6.48	7.28	7.76	7.73
Delaware	6.39	6.45	6.88	6.93	6.82	6.06	5.52	5.64
District of Columbia	7.93	7.35	5.87	5.82	6.32	6.28	6.89	8.74
Florida	6.41	6.38	6.39	6.45	6.53	6.62	6.61	6.67
Georgia	6.08	5.94	5.95	6.57	7.07	7.07	5.96	5.47
Hawaii	15.35	14.62	14.94	15.33	14.64	14.41	13.58	13.84
Idaho	4.86	4.91	4.92	4.93	4.78	4.78	4.67	4.43
Illinois	5.23	6.25	7.66	7.09	6.68	6.19	5.00	4.75
Indiana	5.01	5.97	5.87	5.86	5.72	5.30	4.97	4.39
Iowa	5.32	5.62	8.72	5.98	5.11	4.45	3.84	4.10
Kansas	4.69	5.44	5.98	3.72	4.63	4.73	4.36	4.64
Kentucky	5.80	5.95	6.34	5.82	5.62	5.78	4.92	4.58
Louisiana	6.15	5.90	6.11	6.63	6.10	6.54	6.40	5.46
Maine	6.17	6.55	6.57	7.96	6.44	6.31	7.22	7.32
Maryland	5.88	6.27	6.51	6.34	6.34	6.13	5.71	6.15
Massachusetts	4.79	4.88	4.87	5.06	4.78	4.30	7.41	7.43
Michigan	5.24	5.52	6.09	5.92	5.59	4.78	4.57	4.52
Minnesota	3.99	4.26	4.95	4.88	4.66	4.52	4.44	4.38
Mississippi	4.31	4.25	4.14	4.32	4.33	12.85	4.84	4.83
Missouri	5.36	5.94	6.37	6.02	5.63	5.41	5.14	5.28
Montana	5.07	5.27	5.32	5.17	4.75	4.66	4.53	4.54
Nebraska	4.93	3.35	4.37	4.16	4.26	5.40	4.34	4.37
Nevada	5.13	5.14	5.10	4.92	4.92	4.93	4.90	4.86
New Hampshire	5.86	6.14	6.23	6.29	5.91	5.36	5.79	7.00
New Jersey	4.61	4.50	4.47	4.78	4.65	5.02	5.46	5.87
New Mexico	3.48	4.17	3.37	2.78	2.75	4.23	3.36	3.56
New York	NA	NA	NA	NA	NA	NA	NA	NA
North Carolina	6.35	6.38	6.37	7.14	5.67	6.24	5.85	6.36
North Dakota	3.15	3.77	4.98	6.54	5.55	4.49	4.13	3.36
Ohio	6.43	6.67	6.88	6.29	5.95	5.61	5.01	5.03
Oklahoma	5.06	5.03	5.12	4.72	4.99	4.97	4.44	4.64
Oregon	5.09	5.11	5.09	5.09	4.83	4.81	4.92	4.81
Pennsylvania	7.00	7.53	7.26	7.33	7.11	6.85	6.86	6.25
Rhode Island	8.23	7.95	7.95	8.11	7.71	7.29	7.55	7.46
South Carolina	5.66	5.76	5.74	5.69	5.80	5.87	6.05	6.49
South Dakota	4.07	5.15	8.54	5.68	5.55	4.72	4.36	3.47
Tennessee	5.50	6.05	6.33	5.91	6.08	5.98	5.97	5.94
Texas	4.24	4.33	3.89	3.82	3.81	3.81	3.91	4.25
Utah	2.96	3.07	3.32	3.25	3.34	3.01	2.86	3.69
Vermont	5.11	5.19	5.44	5.45	5.56	5.38	5.24	5.19
Virginia	6.08	6.47	6.65	6.73	6.25	5.17	5.66	5.44
Washington	4.88	5.03	5.10	5.16	4.77	4.78	4.80	4.76
West Virginia	5.82	6.27	4.85	4.67	8.07	6.83	6.34	6.10
Wisconsin	3.72	4.08	4.66	4.72	4.49	4.22	4.80	4.79
Wyoming	3.73	4.06	3.90	4.13	4.11	3.98	4.03	4.08
Total	5.33	5.46	5.56	5.46	5.43	5.40	5.34	5.36

R = Revised Data.
NA = Not Available.

Notes: Data for 1996 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. Average prices for gas delivered to commercial consumers reflect onsystem sales prices only. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. See Table 24 for data on onsystem sales expressed as a percentage of both total commercial and total industrial deliveries. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet)

State	1997							
	Total	December	November	October	September	August	July	June
Alabama	3.10	3.57	3.62	3.66	3.21	3.21	3.08	3.20
Alaska	1.54	1.56	1.55	1.54	1.57	1.56	1.56	1.48
Arizona	3.56	3.37	3.20	3.68	3.26	3.10	3.16	3.90
Arkansas	3.70	3.98	4.28	3.87	3.58	3.57	3.42	3.37
California	4.03	4.45	4.63	4.28	3.50	3.42	3.79	4.00
Colorado	NA	2.74	NA	NA	NA	NA	NA	NA
Connecticut	4.72	4.81	4.96	4.29	4.07	3.86	3.93	4.02
Delaware	4.32	4.60	4.69	4.55	4.06	4.07	4.04	3.99
District of Columbia	—	—	—	—	—	—	—	—
Florida	NA	4.94	5.21	5.02	NA	4.64	4.32	4.40
Georgia	4.45	4.61	5.04	4.80	6.43	4.68	4.81	6.14
Hawaii	—	—	—	—	—	—	—	—
Idaho [a]	2.73	2.77	2.74	2.72	2.69	2.68	2.80	2.52
Illinois	4.63	4.92	5.69	4.57	3.83	4.48	4.15	3.16
Indiana	NA	NA	3.48	3.57	4.07	3.95	3.91	4.38
Iowa	4.08	4.56	4.55	4.42	3.90	3.52	4.11	3.37
Kansas	NA	NA	4.15	4.20	3.44	3.10	3.01	3.03
Kentucky	NA	5.01	5.39	NA	3.99	3.87	3.90	3.61
Louisiana	2.79	3.12	3.52	3.54	R2.86	R2.49	R2.76	R2.71
Maine	5.55	7.19	5.88	4.68	4.65	4.43	4.40	4.45
Maryland	NA	5.49	5.32	4.36	4.87	4.49	5.38	4.67
Massachusetts	5.64	7.02	6.63	4.54	4.19	4.02	4.19	3.73
Michigan	3.91	4.19	4.24	4.51	4.16	4.53	4.60	4.41
Minnesota	3.01	3.24	3.86	3.80	3.06	2.74	2.58	2.72
Mississippi	NA	3.53	4.04	3.86	NA	NA	NA	3.21
Missouri	NA	5.36	5.04	NA	3.89	3.88	3.81	3.81
Montana	4.87	4.93	4.88	4.99	4.98	4.98	4.96	4.88
Nebraska	3.72	3.97	4.32	R4.15	3.48	3.38	3.09	3.02
Nevada	7.27	8.10	9.69	11.58	9.23	7.42	7.08	7.50
New Hampshire	NA	7.42	R6.53	4.54	NA	3.46	3.42	3.62
New Jersey	3.83	4.33	4.41	3.79	3.31	2.72	3.35	3.32
New Mexico	2.56	2.38	2.96	3.56	3.24	3.02	2.92	3.71
New York	NA	NA	5.34	5.03	4.20	NA	NA	NA
North Carolina	4.31	5.10	5.05	4.13	4.30	2.83	4.00	3.64
North Dakota	2.90	3.43	3.85	4.07	3.35	3.66	3.14	3.02
Ohio	5.34	5.60	5.54	4.99	5.55	5.38	4.42	6.96
Oklahoma	4.04	4.26	4.37	4.10	3.44	3.33	3.34	3.32
Oregon	3.17	3.36	3.21	3.04	3.03	2.96	3.15	3.10
Pennsylvania	4.37	4.56	4.59	4.46	4.21	4.14	5.89	4.70
Rhode Island	4.33	5.04	4.59	4.28	4.08	3.66	3.78	3.74
South Carolina	2.72	3.95	4.26	3.97	3.23	3.25	1.89	3.32
South Dakota	4.01	3.71	4.36	4.64	4.16	3.96	4.49	4.08
Tennessee	NA	4.47	R4.17	4.16	3.89	3.44	3.09	NA
Texas	NA	2.80	3.51	3.29	NA	2.34	2.41	2.46
Utah	2.62	3.11	2.98	2.81	2.61	2.81	2.70	2.27
Vermont	3.07	3.11	3.12	2.97	3.00	2.96	2.97	3.01
Virginia	3.64	4.27	3.97	3.44	3.98	3.95	3.82	3.88
Washington	NA	NA	NA	NA	NA	NA	NA	2.81
West Virginia	2.83	2.75	2.68	2.89	2.93	2.84	2.91	2.72
Wisconsin	3.70	4.53	5.05	4.19	3.54	3.24	3.20	3.28
Wyoming	NA	3.55	3.55	NA	NA	3.34	3.38	3.35
Total	3.53	3.78	R4.07	3.66	R3.21	R2.93	R2.93	R3.07

See footnotes at end of table.

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1997					1996		
	May	April	March	February	January	Total	December	November
Alabama	3.19	2.96	3.15	3.91	4.57	3.64	4.61	3.72
Alaska	1.44	1.53	1.55	1.57	1.55	1.41	1.35	1.35
Arizona	3.90	4.31	4.06	3.74	4.32	3.80	3.81	3.80
Arkansas	3.17	3.19	3.31	3.78	4.45	3.28	4.33	3.72
California	2.51	3.45	4.24	5.32	5.49	3.77	4.40	4.01
Colorado	NA	2.17	NA	NA	NA	2.91	1.01	0.94
Connecticut	4.22	4.46	4.91	5.76	6.11	4.80	5.81	4.95
Delaware	3.62	3.62	4.35	5.03	5.29	4.32	5.00	4.62
District of Columbia	—	—	—	—	—	—	—	—
Florida	4.34	4.41	4.42	4.68	4.69	4.21	4.52	4.29
Georgia	4.67	4.39	5.07	5.63	6.40	4.40	4.87	3.76
Hawaii	—	—	—	—	—	—	—	—
Idaho [a]	2.73	2.75	2.75	2.76	2.78	2.78	2.42	2.51
Illinois	3.00	4.10	4.80	5.86	6.49	4.12	4.15	4.09
Indiana	4.50	4.67	4.41	4.21	4.19	3.62	4.16	3.52
Iowa	3.96	3.14	4.04	4.73	3.94	3.63	3.96	3.82
Kansas	2.57	2.32	2.34	3.45	4.33	3.09	4.85	3.37
Kentucky	3.73	3.82	3.97	4.67	4.78	3.87	4.64	3.92
Louisiana	R2.39	R2.34	R2.09	3.49	4.19	2.84	4.07	3.05
Maine	4.10	5.77	7.08	7.10	6.95	5.22	6.60	6.56
Maryland	4.71	20.15	5.67	NA	5.31	5.36	4.63	6.00
Massachusetts	4.63	6.35	7.12	8.35	7.05	5.37	6.98	5.52
Michigan	4.24	4.12	4.15	4.02	4.16	3.87	4.06	3.97
Minnesota	2.67	2.58	2.74	3.73	4.69	2.97	4.18	3.09
Mississippi	3.06	2.98	2.93	3.80	4.45	3.43	4.47	3.59
Missouri	3.45	3.78	4.48	5.94	5.35	4.35	4.84	4.02
Montana	4.85	4.84	4.84	4.80	4.79	4.88	4.87	4.95
Nebraska	2.77	2.66	3.19	4.14	5.13	3.29	4.30	3.62
Nevada	7.77	5.80	4.67	4.64	9.50	4.90	4.67	4.68
New Hampshire	3.12	4.02	6.10	7.97	7.94	4.79	6.84	5.13
New Jersey	3.09	2.87	4.82	5.03	4.92	3.82	4.62	3.70
New Mexico	2.96	5.10	3.40	4.02	3.01	2.90	2.63	2.78
New York	NA	NA	NA	NA	NA	5.04	5.17	4.79
North Carolina	4.01	4.14	4.80	5.41	5.63	4.37	5.14	4.65
North Dakota	2.42	2.37	1.60	4.94	4.39	3.02	3.89	2.36
Ohio	4.50	5.96	5.49	6.71	5.77	4.10	2.79	5.14
Oklahoma	2.75	3.08	3.90	4.53	5.41	3.26	3.87	3.33
Oregon	3.15	3.16	3.25	3.24	3.25	3.24	3.29	3.36
Pennsylvania	4.48	4.73	4.91	5.25	5.25	4.12	3.87	4.15
Rhode Island	4.72	3.56	4.50	5.52	5.64	4.67	9.64	4.62
South Carolina	3.26	3.21	3.43	4.22	4.74	3.77	4.58	4.03
South Dakota	3.55	3.12	3.00	4.00	4.99	3.50	6.16	4.81
Tennessee	3.19	3.40	NA	4.75	4.80	3.92	4.52	3.95
Texas	2.31	2.03	2.08	3.19	4.10	2.58	3.82	2.89
Utah	2.27	2.31	2.53	2.53	2.44	2.10	2.28	2.22
Vermont	3.05	2.98	3.10	3.14	3.32	3.44	3.18	3.20
Virginia	4.03	3.11	4.79	5.51	3.56	4.07	3.91	3.53
Washington	2.94	2.75	2.88	3.58	4.36	2.67	3.81	2.78
West Virginia	2.81	2.49	2.78	3.03	3.44	2.76	2.96	3.06
Wisconsin	2.98	3.89	3.55	4.41	5.06	3.48	4.79	4.10
Wyoming	3.24	3.40	3.40	3.41	3.40	3.14	3.25	3.32
Total	R2.92	R2.99	R3.36	4.20	4.61	3.42	4.20	3.57

See footnotes at end of table.

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1996							
	October	September	August	July	June	May	April	March
Alabama	3.14	2.94	3.50	3.52	3.36	3.30	3.67	3.87
Alaska	1.35	1.35	1.45	1.45	1.45	1.45	1.45	1.45
Arizona	3.78	3.76	3.68	3.58	3.84	3.84	3.84	3.86
Arkansas	3.00	3.07	3.09	3.18	3.06	3.06	3.07	3.29
California	3.32	3.57	3.55	3.63	3.37	3.28	3.60	3.67
Colorado	2.13	0.46	0.27	0.24	1.89	1.94	0.68	0.45
Connecticut	4.00	3.98	3.83	4.01	4.06	4.21	4.69	5.21
Delaware	4.62	4.58	4.71	4.67	4.29	4.79	3.99	3.88
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.96	3.87	4.08	4.12	4.14	4.08	4.51	4.16
Georgia	4.16	2.73	4.08	6.69	5.42	4.47	4.10	4.56
Hawaii	—	—	—	—	—	—	—	—
Idaho [a]	2.76	2.75	2.74	2.92	2.79	2.84	2.76	2.92
Illinois	4.17	5.04	4.98	4.81	5.34	4.55	3.25	4.63
Indiana	3.52	3.91	3.99	3.70	3.91	4.05	3.70	3.41
Iowa	3.46	3.95	3.57	4.43	4.28	3.57	3.10	3.37
Kansas	2.44	3.04	3.21	2.67	2.00	2.62	2.17	3.80
Kentucky	3.73	3.65	3.97	3.74	3.63	3.78	3.73	3.77
Louisiana	2.22	2.08	2.36	2.84	2.71	2.56	2.85	3.13
Maine	4.04	3.96	3.96	4.15	3.95	5.04	6.17	6.27
Maryland	7.80	6.18	7.39	6.35	6.08	6.06	5.39	5.11
Massachusetts	4.15	3.75	3.71	3.98	3.74	4.44	5.81	6.41
Michigan	3.74	3.30	3.47	3.51	3.49	3.62	3.79	3.98
Minnesota	2.12	2.35	2.99	2.91	2.65	2.67	3.34	2.91
Mississippi	2.87	2.85	3.20	3.43	3.23	3.14	3.47	3.58
Missouri	3.75	4.12	4.27	4.23	3.88	3.26	4.20	4.90
Montana	5.02	5.04	5.16	5.09	5.01	4.65	4.84	4.74
Nebraska	2.71	2.86	3.42	3.19	3.09	2.92	3.13	3.10
Nevada	5.01	5.10	5.15	4.80	4.86	4.90	4.91	4.96
New Hampshire	7.64	3.48	3.34	3.46	3.38	3.44	4.21	5.36
New Jersey	3.05	3.01	3.29	3.17	3.28	3.31	4.12	4.26
New Mexico	2.98	3.57	3.44	2.89	2.69	3.31	3.17	4.53
New York	4.45	4.16	4.66	4.73	4.63	4.91	5.40	5.34
North Carolina	4.05	4.03	3.82	3.87	3.64	3.84	3.90	4.62
North Dakota	2.28	2.77	2.99	3.34	3.01	3.16	3.28	3.09
Ohio	4.84	4.51	4.75	4.96	4.06	4.22	4.26	4.19
Oklahoma	3.28	3.57	3.30	3.36	3.41	3.01	2.99	3.11
Oregon	3.52	3.17	3.21	3.30	3.23	3.18	3.12	3.25
Pennsylvania	3.97	3.94	3.90	3.72	3.79	3.90	4.09	4.10
Rhode Island	3.70	3.84	3.82	4.30	3.89	4.11	4.46	5.63
South Carolina	3.29	3.30	3.43	3.54	3.37	3.41	3.79	4.02
South Dakota	4.73	5.36	5.26	4.81	5.44	4.63	4.55	2.02
Tennessee	3.52	3.80	4.11	3.81	3.57	3.81	4.02	4.08
Texas	2.06	2.11	2.53	2.66	2.46	2.39	2.49	2.29
Utah	1.97	2.00	2.03	1.97	2.02	2.06	2.08	2.36
Vermont	3.44	3.17	3.31	3.37	3.55	3.74	3.75	3.54
Virginia	4.14	4.10	4.32	4.45	3.77	3.58	4.82	4.05
Washington	2.52	1.93	3.84	2.36	2.79	2.48	2.47	2.53
West Virginia	2.70	2.78	2.41	2.61	2.72	2.66	2.87	2.89
Wisconsin	2.67	2.74	3.05	3.26	3.08	3.02	3.47	3.38
Wyoming	3.29	3.19	3.15	3.10	2.97	3.28	3.22	3.24
Total	2.89	2.77	3.05	3.17	3.13	3.14	3.42	3.52

[R] = Revised Data.
[NA] = Not Available.
— = Not Applicable.

Notes: Data for 1996 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. Average prices for gas delivered to industrial consumers reflect onsystem sales prices only. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. See Table 24 for data on onsystem sales expressed as a percentage of both total commercial and total industrial deliveries. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 24. Average Price of Natural Gas Delivered to Electric Utility[a] Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet)

State	YTD 1997	YTD 1996	YTD 1995	1997				
				November	October	September	August	July
Alabama	2.76	2.76	1.89	3.70	3.75	2.88	2.56	2.51
Alaska	1.73	1.44	1.30	1.84	1.85	1.88	1.69	1.87
Arizona	3.00	2.93	1.75	4.00	3.11	3.37	2.63	2.20
Arkansas	2.60	2.45	1.71	3.12	3.12	2.89	2.64	2.38
California	3.08	2.64	2.26	3.64	3.40	3.14	2.81	2.69
Colorado	3.23	1.95	1.74	3.90	2.37	2.42	2.77	4.07
Connecticut	2.55	2.74	2.01	3.38	2.76	2.37	2.35	2.33
Delaware	3.10	3.21	2.24	2.58	5.69	3.40	3.00	2.83
District of Columbia	—	—	—	—	—	—	—	—
Florida	2.55	3.04	2.21	3.29	3.21	3.03	2.50	2.30
Georgia	2.75	2.98	2.83	3.33	3.94	3.07	2.27	2.75
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	2.54	2.60	1.63	3.31	3.13	2.82	2.39	2.31
Indiana	3.25	3.35	2.42	4.03	5.25	3.67	3.39	2.77
Iowa	3.29	3.09	2.64	4.16	3.81	3.28	3.12	2.70
Kansas	2.41	2.20	1.55	3.02	3.05	2.70	2.13	2.06
Kentucky	3.33	3.39	2.85	4.24	4.00	3.25	2.92	2.87
Louisiana	2.80	2.86	1.84	3.61	3.40	3.03	2.60	2.44
Maine	—	—	—	—	—	—	—	—
Maryland	2.96	3.07	2.24	4.10	3.91	3.42	2.89	2.35
Massachusetts	3.09	3.02	2.01	4.08	4.08	3.21	2.87	2.81
Michigan	0.82	0.76	0.74	1.08	1.59	0.73	0.58	0.96
Minnesota	2.53	2.20	1.76	3.72	3.67	3.56	2.43	2.43
Mississippi	2.75	2.89	1.73	3.51	3.35	3.02	2.61	2.46
Missouri	2.67	2.53	1.68	3.52	3.35	2.94	2.51	2.39
Montana	7.80	4.89	4.06	6.84	2.98	64.31	1.92	1.37
Nebraska	2.55	1.98	1.64	4.29	3.21	2.98	2.49	2.32
Nevada	2.17	2.11	1.68	2.80	2.64	2.39	2.02	1.98
New Hampshire	2.71	—	1.85	—	—	2.85	2.55	2.74
New Jersey	3.06	2.93	2.12	4.19	4.23	3.42	2.87	2.80
New Mexico	2.64	2.18	1.55	3.02	3.05	2.82	2.47	2.46
New York	2.86	2.88	2.09	3.83	3.39	2.89	2.60	2.58
North Carolina	3.16	3.09	2.41	4.95	3.68	3.38	3.09	3.12
North Dakota	3.81	3.07	3.72	—	—	—	—	4.00
Ohio	3.64	3.21	2.28	4.12	4.00	4.35	4.28	3.10
Oklahoma	2.98	2.92	2.31	4.05	3.46	3.20	2.48	2.37
Oregon	1.48	1.31	1.28	1.44	1.45	1.49	1.49	1.35
Pennsylvania	2.85	2.87	2.03	3.69	3.65	2.99	2.81	2.54
Rhode Island	3.35	2.20	1.81	4.05	4.02	3.32	3.04	2.98
South Carolina	4.14	4.12	1.66	4.00	4.10	4.54	4.54	4.35
South Dakota	—	2.36	1.51	—	—	—	—	—
Tennessee	—	1.20	0.79	—	—	—	—	—
Texas	2.69	2.44	1.90	3.33	3.15	2.85	2.50	2.39
Utah	2.11	2.74	2.31	—	2.00	2.66	1.79	1.86
Vermont	3.25	3.07	1.95	4.21	3.96	—	2.90	2.95
Virginia	3.03	2.99	2.66	4.09	4.73	3.77	2.95	2.58
Washington	5.52	4.66	4.39	5.16	4.21	8.62	0.67	4.83
West Virginia	3.90	3.52	3.65	3.00	3.29	3.41	3.71	3.79
Wisconsin	3.04	2.88	2.11	4.11	3.94	3.09	2.85	3.12
Wyoming	10.71	11.45	7.76	3.43	4.88	7.74	34.13	20.44
Total	2.75	2.62	1.99	3.42	3.23	2.96	2.54	2.44

See footnotes at end of table.

Table 24. Average Price of Natural Gas Delivered to Electric Utility[a] Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1997						1996	
	June	May	April	March	February	January	Total	December
Alabama	2.65	2.44	3.21	2.12	2.04	4.37	2.95	4.32
Alaska	1.79	1.64	1.63	1.55	1.69	1.68	1.45	1.64
Arizona	3.03	3.11	4.47	2.85	4.01	5.70	3.03	7.53
Arkansas	2.40	1.92	1.98	1.60	1.92	4.18	2.52	3.88
California	2.75	2.60	2.63	3.04	4.14	4.67	2.75	4.55
Colorado	2.31	6.20	2.47	2.26	3.32	3.76	2.09	4.30
Connecticut	2.26	2.22	2.22	2.45	3.08	3.97	2.76	4.97
Delaware	1.95	3.68	2.53	2.61	2.90	4.87	3.13	4.06
District of Columbia	—	—	—	—	—	—	—	—
Florida	2.33	2.09	2.26	2.05	2.13	4.60	3.12	4.75
Georgia	3.13	2.64	2.64	3.34	8.15	2.08	2.88	6.28
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	2.37	2.29	2.12	2.00	2.93	3.34	2.62	3.82
Indiana	2.99	3.06	2.88	2.74	3.74	5.04	3.48	4.80
Iowa	3.28	2.89	2.79	2.73	3.74	5.11	3.23	3.77
Kansas	2.11	2.14	2.00	1.80	2.92	4.56	2.25	4.10
Kentucky	2.96	2.83	3.13	3.20	3.69	4.85	3.49	4.64
Louisiana	2.65	2.45	2.18	2.10	2.93	4.35	2.94	4.37
Maine	—	—	—	—	—	—	—	—
Maryland	2.69	2.98	3.14	4.18	5.75	5.04	3.11	5.92
Massachusetts	2.92	2.84	2.54	2.64	3.29	5.37	3.07	4.85
Michigan	0.84	0.42	0.61	0.69	0.59	0.56	0.74	0.55
Minnesota	2.34	2.30	2.34	2.17	3.35	2.26	2.18	2.32
Mississippi	2.52	2.37	2.27	2.08	2.61	4.15	2.78	4.27
Missouri	2.44	2.74	2.77	2.26	4.62	5.41	2.58	4.90
Montana	9.35	13.57	2.87	4.08	9.68	3.54	2.89	1.81
Nebraska	2.00	1.89	1.89	2.29	3.20	3.22	2.07	4.37
Nevada	2.09	1.99	2.02	2.05	2.33	2.14	2.12	2.19
New Hampshire	2.72	2.68	—	—	—	—	—	—
New Jersey	2.85	2.76	2.69	2.57	3.60	4.65	2.96	4.39
New Mexico	2.38	2.39	2.07	2.01	2.85	4.07	2.31	3.80
New York	2.65	2.62	2.53	2.56	3.35	4.36	2.96	4.22
North Carolina	2.87	2.64	2.79	—	—	6.89	3.11	4.41
North Dakota	—	4.14	3.98	2.93	—	—	2.93	2.81
Ohio	3.20	4.13	4.06	4.03	4.16	3.87	3.44	4.27
Oklahoma	2.63	2.91	2.57	2.88	4.36	4.21	2.98	4.43
Oregon	1.57	—	—	1.40	—	1.96	1.33	2.01
Pennsylvania	3.04	2.57	2.31	2.72	2.91	4.65	2.85	4.57
Rhode Island	3.21	3.09	2.82	2.90	4.09	3.18	2.29	3.14
South Carolina	3.51	3.84	3.87	2.84	4.22	6.95	4.56	5.08
South Dakota	—	—	—	—	—	—	2.36	—
Tennessee	—	—	—	—	—	—	2.61	—
Texas	2.46	2.34	2.14	2.12	2.85	3.89	2.51	3.80
Utah	4.82	—	—	—	—	—	1.83	—
Vermont	—	2.83	2.27	2.61	3.60	5.05	3.22	4.42
Virginia	2.93	3.05	2.71	2.76	1.80	3.13	2.98	3.42
Washington	3.83	7.21	5.93	65.04	4.50	5.11	4.98	4.75
West Virginia	3.23	3.22	3.63	3.82	7.68	3.15	2.99	2.94
Wisconsin	2.81	2.58	2.46	2.33	3.42	4.74	3.04	4.29
Wyoming	4.00	11.82	24.02	22.85	2.47	13.99	12.59	26.41
Total	2.52	2.41	2.30	2.30	2.98	4.04	2.69	3.98

See footnotes at end of table.

Table 24. Average Price of Natural Gas Delivered to Electric Utility[a] Consumers, by State, 1996-1997

(Dollars per Thousand Cubic Feet) — Continued

State	1996							
	November	October	September	August	July	June	May	April
Alabama	3.16	2.27	2.14	2.66	3.04	2.71	2.59	3.10
Alaska	1.63	1.73	1.71	1.66	1.58	1.47	1.04	1.16
Arizona	4.76	2.53	2.98	2.61	3.09	3.33	4.43	2.30
Arkansas	2.62	1.36	1.89	2.47	2.57	2.40	2.30	2.54
California	3.40	2.60	2.51	2.63	2.32	2.41	2.59	2.49
Colorado	2.93	2.47	1.54	1.72	2.32	1.52	1.85	2.06
Connecticut	3.26	2.78	2.30	2.78	3.01	2.69	2.62	2.79
Delaware	3.65	2.32	2.32	2.35	3.39	3.01	3.19	4.14
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.38	2.56	2.59	2.99	3.28	3.09	2.91	3.18
Georgia	2.50	3.08	2.72	2.51	2.23	3.25	3.80	5.05
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	3.10	2.12	1.98	2.25	2.70	2.60	2.43	3.03
Indiana	3.86	3.38	2.99	2.95	3.14	3.32	3.21	3.40
Iowa	3.45	2.95	1.80	2.87	2.83	2.55	2.64	3.82
Kansas	2.62	1.88	1.81	2.35	2.19	2.16	2.13	2.45
Kentucky	3.51	2.82	2.59	3.05	3.36	3.15	3.78	3.40
Louisiana	3.12	2.25	2.16	2.64	2.96	2.72	2.63	2.99
Maine	—	—	—	—	—	—	—	—
Maryland	4.02	2.65	2.85	2.49	3.25	3.12	3.13	3.97
Massachusetts	3.85	2.69	2.33	2.71	3.37	3.03	3.08	3.62
Michigan	0.73	0.55	0.59	0.91	0.73	0.88	0.90	0.71
Minnesota	2.19	2.14	2.14	2.10	2.14	2.09	2.36	2.63
Mississippi	3.23	2.10	2.00	2.52	2.85	2.64	2.49	2.95
Missouri	2.61	2.38	2.24	2.41	2.63	2.50	2.42	2.20
Montana	1.66	0.65	6.59	6.79	3.49	4.69	5.95	8.98
Nebraska	2.85	1.85	1.81	2.16	2.27	1.74	1.58	1.94
Nevada	2.37	2.71	1.96	2.20	1.83	2.06	1.90	2.08
New Hampshire	—	—	—	—	—	—	—	—
New Jersey	3.16	2.36	2.42	2.79	3.15	3.14	3.37	3.50
New Mexico	2.94	2.17	1.94	2.33	2.01	1.99	2.04	2.17
New York	3.39	2.37	2.26	2.74	3.06	2.89	2.80	3.35
North Carolina	4.20	2.55	2.80	3.31	3.51	2.93	2.66	3.23
North Dakota	3.92	2.94	—	3.32	2.71	2.81	2.91	—
Ohio	3.92	2.96	2.80	2.70	3.18	3.51	2.99	3.48
Oklahoma	3.61	2.93	2.38	2.64	2.70	2.72	2.95	3.15
Oregon	1.42	1.42	1.27	1.24	1.25	—	—	—
Pennsylvania	3.31	2.70	1.67	2.63	3.52	2.74	3.38	2.64
Rhode Island	2.34	1.81	1.78	2.32	2.27	2.13	2.10	2.36
South Carolina	4.47	5.32	4.01	4.67	3.94	3.69	4.75	4.44
South Dakota	—	—	—	—	2.36	—	—	—
Tennessee	1.20	—	—	—	—	—	—	—
Texas	2.82	2.23	2.10	2.45	2.63	2.46	2.35	2.48
Utah	—	—	1.50	1.67	1.57	2.39	—	—
Vermont	3.37	2.68	2.70	3.15	3.45	3.17	—	2.72
Virginia	2.04	3.77	2.93	2.83	3.36	3.14	3.61	1.51
Washington	5.03	4.35	4.01	4.98	6.14	5.52	4.05	4.22
West Virginia	2.87	3.69	—	3.28	3.35	3.31	2.82	3.00
Wisconsin	3.48	2.55	2.38	2.87	2.97	2.56	2.71	3.01
Wyoming	17.57	17.64	3.19	7.72	3.19	6.99	3.44	30.24
Total	3.04	2.37	2.24	2.57	2.69	2.59	2.52	2.68

[a] Includes all steam electric utility generating plants with a combined capacity of 50 megawatts or greater.

— = Not Applicable.

Notes: Data for 1996 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Sources: Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1997

State	1997							
	Total		December		November		October	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	56.8	18.4	75.3	21.8	61.7	20.2	42.8	18.2
Alaska	63.1	97.8	61.7	100.0	59.4	100.0	60.1	100.0
Arizona	84.5	26.5	85.2	33.8	83.2	32.0	81.1	31.0
Arkansas	93.9	10.6	95.7	10.5	89.9	11.2	92.2	10.0
California	50.2	9.8	54.4	9.9	49.1	7.9	41.6	6.1
Colorado	NA	NA	93.9	24.8	NA	NA	NA	NA
Connecticut	NA	65.4	76.9	62.9	83.1	55.7	NA	66.5
Delaware	92.3	30.8	61.2	39.5	100.0	26.3	100.0	29.0
District of Columbia	58.5	—	60.8	—	60.4	—	44.5	—
Florida	96.6	NA	94.7	5.1	95.2	5.0	96.7	5.4
Georgia	88.0	16.9	90.6	22.7	87.3	18.3	84.5	20.6
Hawaii	NA	—	100.0	—	NA	—	100.0	—
Idaho	86.1	2.2	86.6	2.0	83.2	1.9	76.4	1.6
Illinois	53.3	9.9	51.1	10.7	51.5	8.2	49.1	7.1
Indiana	NA	NA	NA	NA	91.5	19.2	87.4	12.2
Iowa	87.2	7.7	88.8	8.4	84.3	12.0	79.4	10.3
Kansas	NA	NA	NA	NA	56.7	5.7	66.3	5.8
Kentucky	NA	NA	90.6	14.2	89.2	14.4	NA	NA
Louisiana	93.3	8.1	98.0	6.3	97.4	7.4	98.4	7.0
Maine	100.0	91.4	100.0	89.7	100.0	92.2	100.0	89.4
Maryland	64.5	6.1	61.1	0.9	37.4	41.7	50.5	5.5
Massachusetts	60.4	18.9	66.2	31.6	60.0	32.2	46.0	25.9
Michigan	62.8	6.4	64.7	11.8	63.9	9.3	53.3	4.2
Minnesota	98.5	41.9	98.4	42.2	99.1	44.2	98.6	40.2
Mississippi	NA	NA	94.4	38.3	93.3	35.4	89.5	37.5
Missouri	NA	NA	82.7	22.9	78.3	19.9	NA	NA
Montana	90.8	3.1	92.7	3.8	90.4	2.8	87.9	2.3
Nebraska	70.4	22.3	74.1	20.4	68.9	34.2	46.6	[R]17.4
Nevada	71.3	1.8	72.6	6.9	67.9	5.9	65.9	5.5
New Hampshire	NA	NA	94.0	32.4	89.1	[R]34.2	85.7	44.2
New Jersey	66.1	48.8	62.6	32.9	58.9	32.2	57.7	27.7
New Mexico	66.9	14.2	75.5	16.3	70.9	14.1	57.2	9.5
New York	NA	NA	NA	NA	NA	9.0	NA	9.4
North Carolina	94.1	40.4	95.5	30.7	99.4	78.1	98.2	68.8
North Dakota	88.2	39.5	84.8	37.3	90.8	35.6	84.0	26.1
Ohio	64.7	4.0	66.3	5.1	[R]66.5	4.2	[R]54.1	1.8
Oklahoma	85.1	4.6	85.5	5.4	78.5	4.3	75.7	3.1
Oregon	98.5	15.7	98.4	14.5	98.4	13.4	97.5	14.5
Pennsylvania	62.1	13.8	62.4	12.3	61.9	13.9	48.6	12.7
Rhode Island	80.5	17.4	64.0	36.0	80.7	41.2	71.1	39.9
South Carolina	98.1	80.6	97.6	81.5	100.0	86.6	99.9	87.5
South Dakota	83.3	24.0	86.1	34.2	84.0	37.5	68.3	17.8
Tennessee	NA	NA	90.8	24.2	[R]92.5	[R]38.9	86.4	26.8
Texas	61.2	NA	70.3	12.9	65.5	12.1	59.4	13.9
Utah	83.2	9.2	86.1	8.5	83.1	9.8	80.2	9.2
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	76.9	12.5	76.7	14.4	88.7	21.2	68.1	13.5
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	51.3	12.1	55.6	11.1	50.3	13.8	35.6	13.2
Wisconsin	80.8	28.5	82.1	27.9	84.7	28.9	67.9	25.7
Wyoming	NA	NA	92.7	1.9	79.4	1.3	79.7	NA
Total	65.0	15.3	67.5	14.3	[R]63.3	[R]15.2	[R]57.8	14.4

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1997 — Continued

State	1997							
	September		August		July		June	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	33.1	17.6	25.1	17.4	22.8	17.3	49.5	17.2
Alaska	59.0	100.0	54.2	92.8	59.5	91.4	60.0	99.0
Arizona	83.9	30.3	78.7	30.1	79.7	31.3	82.7	18.7
Arkansas	90.9	8.7	91.4	7.9	89.9	9.3	90.7	10.2
California	40.9	9.9	41.5	7.7	45.6	7.8	48.2	8.9
Colorado	NA	NA	NA	NA	NA	NA	NA	NA
Connecticut	74.9	65.5	80.1	62.1	72.8	63.5	77.1	63.7
Delaware	100.0	25.7	100.0	27.5	100.0	27.5	100.0	28.2
District of Columbia	35.5	—	38.8	—	43.9	—	46.7	—
Florida	96.9	NA	97.3	6.1	96.9	5.7	97.6	6.8
Georgia	81.6	9.1	80.1	15.7	79.1	17.4	82.7	13.4
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	82.5	1.7	82.9	1.4	83.2	5.2	83.3	2.3
Illinois	46.7	10.4	39.4	5.3	45.8	3.4	54.8	14.7
Indiana	75.4	8.4	74.7	7.8	72.4	9.0	39.6	9.2
Iowa	77.2	5.9	84.5	6.5	75.0	5.3	90.1	5.1
Kansas	50.3	6.4	44.9	7.0	46.8	5.5	56.1	4.9
Kentucky	83.9	13.0	79.1	11.5	82.9	12.4	87.7	14.1
Louisiana	98.1	R7.1	99.2	R8.0	98.8	R7.9	98.6	R8.3
Maine	100.0	87.8	100.0	88.6	100.0	100.0	100.0	88.5
Maryland	49.0	2.0	54.3	4.9	57.5	3.4	56.5	6.7
Massachusetts	41.4	28.0	39.1	22.4	43.6	23.6	46.1	32.3
Michigan	38.8	3.1	39.8	3.9	54.7	5.8	44.8	5.4
Minnesota	97.7	41.9	98.3	37.0	98.4	47.2	97.0	37.7
Mississippi	NA	NA	NA	NA	NA	NA	91.5	35.9
Missouri	68.4	22.5	68.7	16.7	68.9	18.6	71.5	18.5
Montana	85.5	1.9	87.4	2.0	90.4	1.7	88.7	2.2
Nebraska	59.0	21.0	64.8	14.4	64.4	34.1	61.4	R17.1
Nevada	62.9	4.6	63.1	7.0	73.2	10.2	61.0	9.9
New Hampshire	NA	NA	88.1	47.1	87.0	51.4	90.7	55.4
New Jersey	58.1	28.1	59.0	44.0	55.6	26.5	60.8	26.3
New Mexico	52.9	14.6	53.2	18.3	53.5	18.5	43.1	8.1
New York	NA	7.3	NA	NA	NA	NA	NA	NA
North Carolina	86.4	21.2	84.4	24.2	84.6	20.4	97.5	40.8
North Dakota	74.7	19.4	68.8	28.1	46.5	45.7	80.8	28.9
Ohio	R49.5	1.5	R48.4	2.0	R46.5	2.0	R46.3	2.0
Oklahoma	75.5	3.2	73.6	3.0	79.0	3.8	79.2	2.1
Oregon	98.0	13.2	98.3	12.4	98.3	13.8	98.1	17.3
Pennsylvania	54.6	12.1	64.5	12.5	54.5	9.7	54.7	13.1
Rhode Island	68.7	33.6	67.9	39.6	71.1	41.7	72.4	48.1
South Carolina	98.5	84.8	96.4	R63.9	99.9	74.5	91.0	89.0
South Dakota	59.9	14.0	72.1	12.7	78.3	12.0	83.7	10.7
Tennessee	82.4	18.2	80.4	19.8	80.7	24.4	NA	NA
Texas	47.0	NA	52.3	14.1	50.6	14.2	56.6	19.1
Utah	74.8	12.0	71.7	7.9	72.8	8.2	77.0	9.4
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	67.6	7.4	64.6	4.9	62.9	5.5	65.3	8.1
Washington	NA	NA	NA	NA	NA	NA	79.8	25.5
West Virginia	29.8	11.8	21.6	11.2	23.2	11.8	29.1	11.3
Wisconsin	60.9	22.8	53.8	21.3	66.1	20.4	58.8	19.9
Wyoming	NA	NA	75.8	2.1	28.8	2.1	52.1	1.9
Total	R53.9	13.1	R52.8	R13.1	R54.5	13.6	R56.2	R15.3

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1997 — Continued

State	1997							
	May		April		March		February	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	55.5	18.0	59.3	17.3	76.2	17.9	79.7	19.5
Alaska	63.8	99.0	65.8	98.8	66.0	98.6	67.3	97.9
Arizona	86.1	18.1	83.8	21.2	86.5	22.8	87.8	24.7
Arkansas	91.4	11.3	93.5	10.9	94.9	12.1	96.6	13.6
California	49.5	13.0	51.6	10.6	54.5	11.0	58.5	11.3
Colorado	NA	NA	95.0	25.2	NA	NA	NA	NA
Connecticut	79.7	65.6	87.1	68.2	87.0	68.2	90.2	78.8
Delaware	100.0	34.4	100.0	35.6	100.0	32.7	100.0	34.0
District of Columbia	53.7	—	100.0	—	59.9	—	62.8	—
Florida	97.7	6.4	97.8	7.0	97.0	6.7	96.6	8.0
Georgia	83.9	12.9	87.2	15.9	88.9	15.7	92.7	21.1
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	86.5	2.5	86.1	2.1	87.8	2.1	89.7	2.2
Illinois	47.4	13.8	53.1	8.4	54.4	10.3	54.3	9.8
Indiana	38.3	9.6	82.1	10.6	86.5	12.7	93.0	19.8
Iowa	83.2	5.4	90.3	7.2	88.5	7.4	89.4	7.2
Kansas	58.3	13.9	66.1	12.6	60.1	11.4	65.7	13.2
Kentucky	85.3	15.7	88.2	14.9	89.6	15.5	90.8	19.4
Louisiana	98.5	R9.0	98.1	R7.6	71.7	R10.7	98.4	8.6
Maine	100.0	91.2	100.0	91.3	100.0	91.8	100.0	100.0
Maryland	62.3	12.5	76.8	1.6	79.8	17.3	82.8	14.7
Massachusetts	67.1	41.7	72.2	38.5	70.9	34.4	67.3	36.8
Michigan	57.7	7.8	65.3	10.4	66.4	12.8	69.4	14.2
Minnesota	97.8	39.3	98.0	42.6	99.0	47.3	98.7	45.5
Mississippi	96.7	39.8	92.4	35.4	95.8	36.5	96.3	37.6
Missouri	76.9	24.1	80.7	16.7	83.9	27.3	79.9	19.5
Montana	90.2	2.1	91.1	4.5	90.4	4.1	93.0	4.1
Nebraska	68.2	21.4	72.3	19.0	70.8	21.8	87.9	27.0
Nevada	65.7	7.4	69.2	8.0	78.1	7.3	79.7	15.2
New Hampshire	91.6	75.1	92.0	62.3	94.0	53.6	99.1	52.1
New Jersey	56.5	28.5	64.0	36.9	68.5	30.3	93.5	36.0
New Mexico	59.5	10.9	58.1	2.8	70.5	3.9	72.5	2.1
New York	NA	NA	NA	NA	NA	NA	NA	NA
North Carolina	89.3	21.7	87.5	22.4	91.6	30.2	95.9	39.6
North Dakota	88.7	36.5	91.9	39.4	91.4	59.4	93.9	49.5
Ohio	58.0	3.2	64.8	3.3	69.2	5.5	68.5	5.6
Oklahoma	82.0	4.1	86.3	3.7	88.1	5.9	90.5	8.7
Oregon	98.5	16.7	98.5	19.3	98.8	19.6	98.9	20.2
Pennsylvania	48.0	13.3	64.7	14.1	64.3	15.4	69.8	14.9
Rhode Island	80.8	48.5	88.5	55.8	82.2	61.7	91.7	45.9
South Carolina	100.0	87.0	95.8	77.7	97.4	80.3	98.2	78.2
South Dakota	80.7	17.3	85.7	22.6	86.3	26.7	85.7	30.4
Tennessee	86.7	29.6	90.4	28.1	NA	NA	92.5	28.7
Texas	56.5	18.1	59.2	20.1	66.7	17.3	67.8	17.1
Utah	78.8	9.0	83.8	9.2	83.0	6.7	87.2	10.8
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	72.2	6.5	72.6	12.2	77.0	13.2	81.6	6.8
Washington	80.7	21.0	83.1	26.8	86.0	27.3	86.7	26.8
West Virginia	43.8	11.4	49.6	7.1	60.3	19.7	67.8	14.8
Wisconsin	75.5	27.6	81.8	25.6	87.4	34.0	87.3	35.9
Wyoming	77.8	1.8	62.1	1.9	74.0	1.8	82.1	1.9
Total	59.4	15.7	66.3	16.0	68.6	16.4	71.9	16.8

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1997 — Continued

State	1997		1996					
	January		Total		December		November	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	77.7	17.7	81.1	22.6	80.7	22.4	73.2	22.6
Alaska	69.5	97.1	63.4	64.3	61.8	68.0	58.2	71.3
Arizona	87.4	19.9	85.2	19.7	84.1	19.9	84.1	18.2
Arkansas	96.1	12.9	95.0	13.3	95.7	13.8	94.1	13.6
California	58.0	11.3	54.9	11.2	56.1	9.9	57.9	10.8
Colorado	NA	NA	93.2	7.4	94.3	7.1	92.8	8.3
Connecticut	90.1	76.0	87.0	84.6	87.9	80.1	84.0	74.8
Delaware	100.0	28.8	100.0	37.3	100.0	30.8	100.0	32.5
District of Columbia	67.9	—	70.5	—	65.3	—	55.1	—
Florida	96.1	8.2	97.1	13.4	96.1	12.5	97.0	11.1
Georgia	93.7	20.0	94.1	32.2	93.2	31.6	92.2	26.7
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	87.8	1.9	86.6	1.4	87.6	2.6	84.9	0.5
Illinois	62.0	14.6	53.9	13.7	56.1	22.5	53.0	13.7
Indiana	93.7	20.1	96.3	16.6	97.4	21.4	96.1	16.3
Iowa	90.3	9.6	87.7	9.0	87.2	11.7	86.6	18.4
Kansas	86.2	8.2	71.7	7.7	71.6	8.3	82.4	6.9
Kentucky	91.9	22.1	90.8	27.1	91.9	24.1	88.9	21.5
Louisiana	88.0	9.5	98.3	10.6	98.0	11.3	98.3	9.9
Maine	100.0	100.0	100.0	91.0	100.0	90.2	100.0	91.5
Maryland	84.5	2.8	91.9	11.7	93.2	19.7	92.2	2.1
Massachusetts	67.3	48.6	74.7	41.9	68.9	33.8	62.5	45.3
Michigan	69.2	14.0	66.9	12.5	70.2	15.8	67.2	12.7
Minnesota	98.6	37.1	96.2	41.3	95.6	44.5	94.8	44.1
Mississippi	96.9	38.4	97.4	41.7	96.9	44.1	96.7	44.8
Missouri	86.3	28.3	82.2	24.7	84.6	33.1	78.6	27.7
Montana	90.9	4.4	91.5	3.4	92.7	4.3	91.6	4.4
Nebraska	77.6	28.9	70.0	20.4	76.6	23.5	68.6	23.3
Nevada	77.2	8.3	74.2	7.2	74.9	7.8	70.8	7.4
New Hampshire	98.8	44.2	96.9	55.4	96.1	45.4	93.6	59.3
New Jersey	70.6	35.9	73.3	53.6	70.2	35.5	69.4	52.7
New Mexico	74.0	19.4	64.7	3.5	71.8	13.3	68.5	4.8
New York	NA	NA	77.0	14.7	NA	13.1	NA	11.4
North Carolina	100.0	90.1	96.5	59.4	99.0	91.6	92.0	49.7
North Dakota	93.4	43.3	88.0	26.5	91.0	43.9	89.7	49.6
Ohio	72.5	8.4	71.8	7.4	74.0	10.0	72.4	7.8
Oklahoma	90.7	7.4	84.5	6.6	87.6	7.1	82.1	7.6
Oregon	98.8	17.0	98.3	18.0	98.6	16.0	98.3	14.4
Pennsylvania	69.3	18.9	70.4	18.5	61.0	22.3	63.3	16.6
Rhode Island	89.6	38.1	91.8	16.9	89.1	12.4	87.3	17.4
South Carolina	100.0	86.8	99.0	85.8	100.0	89.3	97.4	85.8
South Dakota	86.9	31.4	82.7	24.6	82.8	23.5	80.6	24.2
Tennessee	94.0	35.9	94.3	47.0	95.3	42.8	92.8	40.6
Texas	65.4	19.2	83.5	20.2	87.1	17.5	84.2	16.5
Utah	86.2	10.2	81.9	9.0	84.4	9.7	81.2	9.3
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	87.5	15.5	85.3	18.0	88.1	22.1	84.8	21.4
Washington	87.8	26.7	85.9	24.4	87.4	27.2	84.6	22.2
West Virginia	67.8	14.4	56.3	14.3	71.3	14.4	54.5	14.8
Wisconsin	88.8	37.6	91.6	36.4	91.8	34.5	90.9	34.6
Wyoming	85.0	1.5	85.9	2.9	69.0	3.1	81.1	0.8
Total	72.5	18.5	77.6	20.2	78.4	20.7	76.1	19.0

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1997 — Continued

State	1996							
	October		September		August		July	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	71.2	20.4	73.1	20.8	72.5	19.6	73.7	20.6
Alaska	54.2	64.8	50.7	67.0	53.1	60.9	51.2	55.0
Arizona	83.2	16.8	83.5	16.7	78.5	18.0	82.1	17.2
Arkansas	90.2	13.6	92.7	11.3	91.6	10.9	88.5	11.0
California	44.1	9.3	45.3	9.9	44.7	9.0	48.4	10.4
Colorado	89.1	9.7	90.6	9.2	87.1	8.3	88.0	9.0
Connecticut	81.3	71.9	68.9	71.2	77.6	78.0	81.1	80.3
Delaware	100.0	30.7	100.0	27.6	100.0	26.2	100.0	26.2
District of Columbia	48.0	—	46.9	—	52.1	—	56.4	—
Florida	97.4	12.2	97.6	10.1	97.2	11.0	97.5	11.5
Georgia	90.6	28.9	86.6	35.0	88.1	28.5	88.7	18.9
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	77.3	1.7	80.0	1.3	81.9	1.8	82.4	1.1
Illinois	48.8	8.6	43.2	6.4	43.0	5.8	39.6	5.7
Indiana	91.5	11.7	86.8	9.2	86.8	9.4	91.6	10.2
Iowa	81.8	9.8	77.0	5.6	92.2	8.3	77.2	4.9
Kansas	70.0	9.2	72.8	9.4	38.0	7.3	47.5	8.4
Kentucky	88.9	20.9	84.3	18.6	85.4	18.1	85.9	25.6
Louisiana	98.6	9.8	98.9	10.2	97.5	12.1	99.2	11.1
Maine	100.0	91.3	100.0	89.1	100.0	88.0	100.0	88.7
Maryland	87.3	3.7	87.0	1.6	85.0	3.7	81.4	6.3
Massachusetts	69.5	39.6	55.4	34.6	61.3	39.6	68.1	41.7
Michigan	55.8	8.1	44.6	5.5	41.3	6.0	44.2	5.8
Minnesota	92.4	41.2	90.3	35.8	95.8	38.6	94.4	38.6
Mississippi	96.0	39.1	97.2	40.0	97.9	41.5	97.4	38.3
Missouri	69.3	17.0	67.3	18.2	58.1	13.2	62.0	19.4
Montana	87.5	2.8	86.1	2.1	87.2	1.4	87.8	1.7
Nebraska	40.3	15.2	66.2	17.0	54.1	17.2	51.8	17.8
Nevada	64.0	5.2	67.6	5.3	66.7	5.6	69.2	5.8
New Hampshire	94.3	53.7	96.0	53.7	94.8	51.4	93.7	52.7
New Jersey	67.2	48.2	61.8	53.2	60.0	57.8	62.0	57.4
New Mexico	63.5	2.6	61.3	2.0	62.2	3.8	65.7	1.9
New York	NA	11.3	NA	12.5	NA	12.9	NA	11.9
North Carolina	85.7	26.7	86.1	24.7	88.5	34.7	96.0	64.5
North Dakota	79.9	36.2	69.1	21.1	74.5	8.7	77.2	9.1
Ohio	68.5	3.7	65.1	4.3	53.9	3.6	56.4	2.9
Oklahoma	73.0	4.7	72.7	4.8	69.0	5.4	72.2	4.8
Oregon	97.0	14.1	97.6	14.2	98.0	13.6	98.1	13.6
Pennsylvania	59.7	13.5	66.3	13.8	66.2	14.8	64.9	15.6
Rhode Island	66.5	18.3	49.9	13.2	86.8	14.5	84.1	10.9
South Carolina	96.4	83.4	97.3	84.5	97.3	84.7	100.0	90.0
South Dakota	72.9	10.4	69.4	7.9	66.9	8.8	67.1	9.9
Tennessee	87.3	45.0	80.8	36.2	88.4	40.4	94.5	50.0
Texas	75.4	20.2	77.9	19.4	81.1	21.8	82.0	23.1
Utah	79.5	9.4	78.4	8.3	71.9	7.5	73.3	7.2
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	74.3	11.1	65.5	11.9	74.0	10.2	68.8	11.2
Washington	82.7	19.8	81.5	20.4	80.1	12.0	80.0	21.7
West Virginia	43.4	13.3	34.7	12.0	44.4	13.1	43.9	13.0
Wisconsin	87.1	29.9	82.4	26.6	83.8	26.0	82.1	26.3
Wyoming	70.5	0.9	98.7	4.0	98.3	4.0	99.6	3.2
Total	68.8	18.1	66.9	17.6	65.9	18.1	67.3	19.1

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1996-1997 — Continued

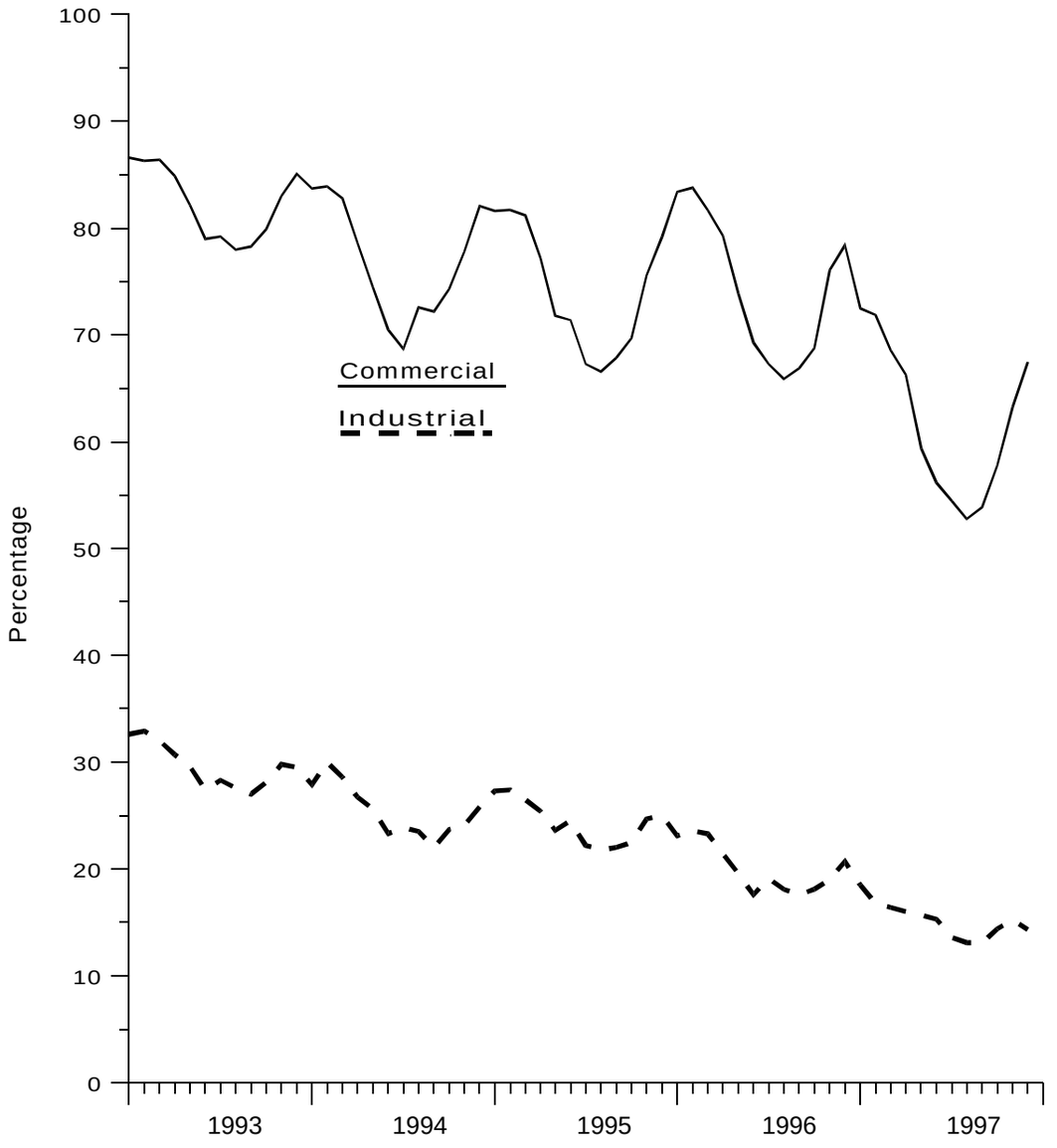
State	1996							
	June		May		April		March	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	75.4	20.9	80.2	23.1	83.8	24.0	84.1	24.0
Alaska	55.0	59.6	59.1	69.5	62.5	64.3	76.0	65.6
Arizona	83.6	18.5	84.8	26.0	83.7	19.8	86.9	21.3
Arkansas	94.2	11.7	92.4	13.0	96.3	14.1	95.6	13.9
California	53.5	10.4	52.6	11.6	64.1	12.6	63.7	12.7
Colorado	92.5	6.9	92.4	6.2	93.1	6.0	93.8	5.5
Connecticut	78.9	89.3	78.5	91.9	89.8	93.9	93.1	96.2
Delaware	100.0	38.3	100.0	31.7	100.0	28.5	100.0	57.0
District of Columbia	70.5	—	70.4	—	85.4	—	83.0	—
Florida	97.6	12.6	97.8	14.8	97.6	15.8	96.7	15.7
Georgia	89.0	23.9	92.2	31.7	94.9	35.5	96.9	39.5
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	86.0	1.8	85.7	1.4	87.2	1.4	88.2	1.5
Illinois	44.1	5.1	49.7	9.3	51.7	14.8	57.8	19.6
Indiana	88.9	5.0	93.7	30.3	97.4	20.0	97.9	24.5
Iowa	86.6	5.4	85.9	5.6	85.8	7.4	88.3	8.2
Kansas	57.7	4.7	56.3	9.2	68.5	7.5	77.1	8.9
Kentucky	91.1	16.8	84.0	23.2	90.3	33.2	92.1	38.3
Louisiana	98.6	10.8	97.5	9.9	99.0	10.9	97.7	9.6
Maine	100.0	89.8	100.0	90.1	100.0	86.5	100.0	87.1
Maryland	86.8	8.4	86.2	11.1	92.4	18.2	93.7	22.6
Massachusetts	71.3	44.1	79.2	40.7	80.2	48.2	82.4	42.1
Michigan	46.1	7.2	64.4	10.2	68.5	15.1	73.1	15.7
Minnesota	95.4	38.3	97.3	38.5	97.6	50.2	97.2	43.2
Mississippi	96.9	40.4	97.4	40.7	97.3	41.8	97.0	43.1
Missouri	72.3	23.7	78.7	24.7	84.6	26.2	85.6	24.5
Montana	90.8	1.8	90.8	2.7	92.6	3.8	91.9	4.8
Nebraska	66.0	14.9	69.8	19.0	77.3	20.6	77.7	22.5
Nevada	73.0	6.6	74.2	6.5	76.4	8.3	78.2	8.5
New Hampshire	95.6	56.1	98.1	61.9	98.0	58.5	98.3	55.2
New Jersey	66.3	48.9	68.8	59.0	73.5	58.4	78.9	64.4
New Mexico	65.0	3.8	46.3	3.5	58.5	2.1	60.4	0.6
New York	NA	13.3	NA	14.1	NA	15.5	NA	21.2
North Carolina	90.7	48.1	91.4	40.2	99.7	79.4	99.9	92.1
North Dakota	77.2	8.2	85.1	17.8	88.7	22.4	90.5	18.1
Ohio	42.1	3.8	63.1	5.8	72.3	8.0	76.1	9.7
Oklahoma	75.5	4.9	78.5	3.1	88.2	8.3	87.0	8.6
Oregon	98.3	16.3	98.2	18.1	98.1	23.7	98.6	25.4
Pennsylvania	62.7	13.9	67.9	15.7	71.6	18.2	76.7	26.0
Rhode Island	92.0	18.1	97.8	21.5	98.2	19.7	98.4	61.9
South Carolina	96.9	81.8	97.5	82.9	100.0	89.3	100.0	87.0
South Dakota	74.5	7.7	78.7	12.2	85.0	17.1	84.7	60.7
Tennessee	90.9	49.1	92.6	44.4	96.9	57.0	93.9	56.6
Texas	80.0	20.7	81.5	20.0	84.5	18.6	82.2	20.4
Utah	72.9	9.2	77.7	8.8	82.3	9.9	82.8	9.2
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	66.9	14.7	78.5	22.2	84.3	21.7	90.9	19.5
Washington	82.0	22.4	84.4	23.8	84.4	26.6	87.6	32.0
West Virginia	27.1	12.6	45.3	12.9	53.9	13.2	63.0	15.1
Wisconsin	86.1	26.7	89.9	35.7	92.0	38.4	94.0	50.3
Wyoming	96.2	3.7	81.0	3.8	82.0	3.1	98.0	3.2
Total	69.3	17.6	73.9	19.6	79.3	21.4	81.7	23.3

R = Revised Data.
NA = Not Available.
— = Not Applicable.

Notes: Volumes of natural gas reported for the commercial and industrial sectors in this publication include data for both sales and deliveries for the account of others. This table shows the percent of the total State volume that represents natural gas sales to the commercial and industrial sectors. This information may be helpful in evaluating commercial and industrial price data which are based on sales data only. See Appendix C, Statistical Considerations, for a discussion of the computation of natural gas prices.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Figure 6. Percentage of Total Deliveries Represented by Onsystem Sales, 1993-1997



Sources: Energy Information Administration, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 26. Gas Home Customer-Weighted Heating Degree Days

Census Divisions	November 1 through November 30					December 1 through December 31				
	Normal[a]	1996	1997	Percent Change		Normal[a]	1996	1997	Percent Change	
				Normal to 1997	1996 to 1997				Normal to 1997	1996 to 1997
New England										
CT, ME, MA, NH, RI, VT	693	820	784	13.1	-4.4	1,073	902	1,028	-4.2	14.0
Middle Atlantic										
NJ, NY, PA	646	775	729	12.8	-5.9	1,010	864	948	-6.1	9.7
East North Central										
IL, IN, MI, OH, WI	730	917	829	13.6	-9.6	1,142	1,076	1,052	-7.9	-2.2
West North Central										
IA, KS, MN, MO, ND, NE, SD	788	982	892	13.2	-9.2	1,235	1,272	1,090	-11.7	-14.3
South Atlantic										
DE, FL, GA, MD and DC, NC, SC, VA, WV	421	538	519	23.3	-3.5	696	621	708	1.7	14.0
East South Central										
AL, KY, MS, TN	431	524	546	26.7	4.2	717	621	778	8.5	25.3
West South Central										
AR, LA, OK, TX	280	291	359	28.2	23.4	534	443	590	10.5	33.2
Mountain										
AZ, CO, ID, MT, NV, NM, UT, WY	715	711	737	3.1	3.7	1,006	924	1,039	3.3	12.4
Pacific[b]										
CA, OR, WA	341	320	276	-19.1	-13.8	519	454	504	-2.9	11.0
U.S. Average[b]	559	657	621	11.1	-5.5	881	804	845	-4.1	5.1

	January 1 through January 31					February 1 through February 28				
	Normal[a]	1997	1998	Percent Change		Normal[a]	1997	1998	Percent Change	
				Normal to 1998	1997 to 1998				Normal to 1998	1997 to 1998
New England										
CT, ME, MA, NH, RI, VT	1,222	1,183	1,014	-17.0	-14.3	1,053	872	868	-17.6	-0.5
Middle Atlantic										
NJ, NY, PA	1,168	1,129	894	-23.5	-20.8	999	821	783	-21.6	-4.6
East North Central										
IL, IN, MI, OH, WI	1,314	1,330	1,037	-21.1	-22.0	1,092	958	773	-29.2	-19.3
West North Central										
IA, KS, MN, MO, ND, NE, SD	1,384	1,420	1,175	-15.1	-17.3	1,095	1,019	791	-27.8	-22.4
South Atlantic										
DE, FL, GA, MD and DC, NC, SC, VA, WV	809	740	619	-23.5	-16.4	652	509	539	-17.3	5.9
East South Central										
AL, KY, MS, TN	843	793	634	-24.8	-20.1	656	521	524	-20.1	0.6
West South Central										
AR, LA, OK, TX	631	613	440	-30.3	-28.2	457	406	373	-18.4	-8.1
Mountain										
AZ, CO, ID, MT, NV, NM, UT, WY	1,052	1,021	926	-12.0	-9.3	820	834	803	-2.1	-3.7
Pacific[b]										
CA, OR, WA	526	484	472	-10.3	-2.5	401	387	425	6.0	9.8
U.S. Average[b]	995	975	797	-19.9	-18.3	806	708	641	-20.5	-9.5

See footnotes at end of table.

Table 26. Gas Home Customer-Weighted Heating Degree Days — Continued

Census Divisions	Cumulative November 1 through February 28				
				Percent Change	
	Normal[a]	1997	1998	Normal to 1998	1997 to 1998
New England					
CT, ME, MA, NH, RI, VT	4,041	3,777	3,694	-8.6	-2.2
Middle Atlantic					
NJ, NY, PA	3,823	3,589	3,354	-12.3	-6.5
East North Central					
IL, IN, MI, OH, WI	4,278	4,281	3,691	-13.7	-13.8
West North Central					
IA, KS, MN, MO, ND, NE, SD	4,502	4,693	3,948	-12.3	-15.9
South Atlantic					
DE, FL, GA, MD and DC, NC, SC, VA, WV	2,578	2,408	2,385	-7.5	-1.0
East South Central					
AL, KY, MS, TN	2,647	2,459	2,482	-6.2	0.9
West South Central					
AR, LA, OK, TX	1,902	1,753	1,762	-7.4	0.5
Mountain					
AZ, CO, ID, MT, NV, NM, UT, WY	3,593	3,490	3,505	-2.4	0.4
Pacific[b]					
CA, OR, WA	1,787	1,645	1,677	-6.2	1.9
U.S. Average[b]	3,241	3,144	2,904	-10.4	-7.6

[a] Normal is based on calculations of data from 1961 through 1990.
[b] Excludes Alaska and Hawaii.

Note: See Appendix A, Explanatory Note 10 for discussion of Heating Degree-Days computations.

Sources: National Oceanic and Atmospheric Administration.

Appendix A

Explanatory Notes

The Energy Information Administration (EIA) publishes monthly data for the supply and disposition of natural gas in the United States in the *Natural Gas Monthly* (NGM). The information in this Appendix is provided to assist users in evaluating the monthly data. There is a brief description of what data are estimated and what data are taken from submitted reports, followed by ten technical notes that provide important information for individual data series.

The monthly data are preliminary when initially published. Data shown in this report for the most current months are taken from the EIA Short-Term Integrated Forecasting System (STIFS) model computations. Each month, EIA staff review the STIFS model estimates and adjust them, if necessary, based on their knowledge of new developments in the natural gas industry. Data for prior months are estimated or taken from submitted reports.

Table A1. Methodology for Reporting Initial Monthly Natural Gas Supply and Disposition Data

Components	Reporting Methodology
Supply and Disposition	
Marketed Production	Reported on Form EIA-895 and Estimated from Historical Data
Extraction Loss	Derived from Marketed Production
Dry Production	Marketed Production minus Extraction Loss
Withdrawals from Storage	Reported on Form EIA-191
Supplemental Gaseous Fuels	Derived from Supply Estimates and Coal Gasification Information
Imports	Estimated from National Energy Board of Canada Information and Liquefied Natural Gas Information
Additions to Storage	Reported on Form EIA-191
Exports	Estimated from Industry Trends and Liquefied Natural Gas Information
Current-Month Consumption	Estimated from Historical Month-to-Month Percent Changes
Consumption by Sector	
Lease and Plant Fuel	Derived from Marketed Production
Pipeline Fuel	Derived from Estimates for Lease and Plant Fuel and Deliveries to Consumers
Residential	Estimated from Reports to the Sample Survey Form EIA-857
Commercial	Estimated from Reports to the Sample Survey Form EIA-857
Industrial	Estimated from Reports to the Sample Survey Form EIA-857
Electric Utilities	Reported on Form EIA-759

For data that are not taken from STIFS computations, Table A1 below lists the methodologies for deriving the monthly data to be published.

The STIFS model contains a series of calculations that produce forecasts for all of the energy industry. It is driven primarily by three sets of inputs or assumptions: estimates of key macroeconomic variables, world oil price assumptions, and assumptions about the severity of weather. The natural gas estimates also reflect other key inputs or assumptions including gas wellhead prices, electric power generation by other energy sources, and U.S. gas import capacity. The macroeconomic variable estimates are produced by DRI/McGraw-Hill but are adjusted by EIA to reflect EIA assumptions about the world price of oil, energy product prices, and other assumptions which may affect the macroeconomic outlook. The EIA publishes forecasts for the energy industry each quarter in the *Short-Term Energy Outlook.*

For production, total supply and disposition, and storage data (Tables l, 2, and 9), the most current two months shown are estimates produced from STIFS computations, and data that are two months or more prior to the date of publication are estimated or taken from submitted reports. For example, in the March issue of the NGM, February and March data are taken from the STIFS model computations while January and prior months data are estimated from available data sources or reported directly on EIA forms. For consumption data by sector (Table 3), the most current three months shown are estimates produced from STIFS computations while data that are three months prior to date of publication are taken from EIA forms.

Note 1. Nonhydrocarbon Gases Removed

Annual Data

Data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are reported by State agencies on the voluntary Form EIA-895. For 1995, of the 33 producing States, 22 reported data on nonhydrocarbon gases removed. The 22 States accounted for 60 percent of total 1995 gross withdrawals. Of the 22 States reporting nonhydrocarbon gases removed, 11 reported zero values: Alaska, Arizona, Arkansas, Colorado, Illinois, Maryland, Missouri, Nevada, New York, South Dakota, and Virginia. The ten States reporting volumes greater than zero are Alabama, California, Florida, Kentucky, Mississippi, Nebraska, New Mexico, North Dakota, Texas, and Wyoming. In addition, Kansas, Louisiana, Montana, and Oklahoma, which together accounted for 40 percent of gross withdrawals, did not report nonhydrocarbon gases removed separately. However, their gross withdrawal data excluded all or most of the nonhydrocarbon gases removed on leases. No estimates are made for States not reporting nonhydrocarbon gases removed.

Preliminary Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual* for the year in which the report month falls. Seven States report monthly data on nonhydrocarbon gases removed: Alabama, Arizona, Mississippi, New Mexico, North Dakota, Oregon and Texas. Monthly data for California, Colorado, Florida, and Wyoming are estimated based on annual data reported on Form EIA-895. Nonhydrocarbon gases as an annual percentage of gross withdrawals reported by each of the six States is applied to each State's monthly gross withdrawal data to produce an estimate of nonhydrocarbon gases removed.

Final Monthly Data

Beginning with report year 1990, States filing the Form EIA-627, "Annual Quantity and Value of Natural Gas Report," were asked to supply monthly breakdowns of all data previously reported on an annual basis. The sums of the reported figures were used to calculate monthly volumes. In 1997 the Form EIA-627 was discontinued. States were requested to file an annual schedule on the monthly Form EIA-895, "Monthly Quantity and Value of Natural Gas Report."

For States not supplying monthly data on the annual schedule of the EIA-895, final monthly data are calculated by proportionally allocating the differences between total annual data reported on the Form EIA-895 and the sum of monthly data (January-December).

Note 2. Supplemental Gaseous Fuels

Annual Data

Annual data are published from Form EIA-176.

Preliminary Monthly Data

All monthly data are considered preliminary until after the publication of the *Natural Gas Annual* for the year in which the report month falls. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the monthly sum of these three elements to compute a monthly supplemental gaseous fuels figure.

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual*. Final monthly data are estimated based on the revised annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the revised monthly sum of these three elements to compute final monthly data.

Note 3. Production

Annual Data

Natural gas production data are collected from 33 gas-producing States on Form EIA-895 which includes gross withdrawals, vented and flared, repressuring, nonhydrocarbon gases removed, fuel used on leases, marketed production (wet), and extraction loss. The U.S. Minerals Management Service (MMS) also supplies data on the quantity and value of natural gas production on the Gulf of Mexico and Outer Continental Shelf. No adjustments are made to the data.

Estimated Monthly Data

State marketed production data for a particular month are estimated if data are unavailable at the time of publication. The data are estimated based on final monthly data reported on the Form EIA-895 for the previous year.

Estimates for total U.S. marketed production are based on final monthly data reported on the Form EIA-895 for the previous year. State estimates for nonhydrocarbon gas removed, gas used for repressuring, and gas vented and flared are based on the ratio of the item to gross withdrawals as reported on the EIA-895. These ratios are applied to the month's estimates for gross withdrawals to calculate figures for nonhydrocarbon gases removed, gas used for repressuring, and gas vented and flared. Estimates for gross withdrawal data are calculated from final monthly data filed on Form EIA-895 for the previous year.

Preliminary Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual* for the year in which the report month falls. Preliminary monthly data are published from reports from the Form EIA-895 and the MMS. Volumetric data are converted, as necessary, to a standard 14.73 psia pressure base. Data are revised as Table 7 monthly data are updated.

Final Monthly Data

Final monthly data for 1993, 1994, and 1995 are the sums of monthly data reported on the annual Form EIA-627, "Annual Quantity and Value of Natural Gas Report." For prior years, the differences between each State's annual production data reported on the EIA-627 and the sum of its monthly IOGCC reports for the year were allocated proportionally to the monthly IOGCC data.

Note 4. Imports and Exports

Annual Data and Final Monthly Data

Annual and final monthly data are published from the Office of Fossil Enery, U.S. Department of Energy, *Natural Gas Imports and Exports*, which requires data to be reported each quarter by month for the calendar year.

Preliminary Monthly Data - Imports

Preliminary monthly import data are based on data from the National Energy Board of Canada and responses to informal industry contacts and EIA estimates. Preliminary data are revised after the publication of the article "U.S. Imports and Exports of Natural Gas" for the calendar year.

Preliminary Monthly Data - Exports

Preliminary monthly export data are based on historical data from the Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports*, informal industry contacts, and information gathered from natural gas industry trade publications. Preliminary monthly data are revised after publication of "U.S. Imports and Exports of Natural Gas" for the calendar year in which the report month falls.

Note 5. Consumption

All Annual Data

All consumption data except electric utility data are from the Form EIA-857 and Form EIA-176. No adjustments are made to the data. Electric utility data are reported on Form EIA-759.

Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual.*

Total Consumption

Preliminary Monthly Data

The most current month estimate is calculated based on the arithmetic average change from the previous month for the previous 3 years. The following month this estimate is revised by summing the components (pipeline fuel, lease and plant fuel, and deliveries to consumers).

Final Monthly Data
Monthly data are revised after publication of the *Natural Gas Annual.* Final monthly total consumption is obtained by summing its components.

Residential, Commercial, and Industrial Sector Consumption

Preliminary Monthly Data

Preliminary monthly residential, commercial, and industrial data are from Form EIA-857. See Appendix C, "Statistical Considerations," for a detailed explanation off sample selection and estimation procedures.

Average Price of Deliveries to Consumers

Price data are representative of prices for gas sold and delivered to residential, commercial, and industrial consumers. These prices do not reflect average prices of natural gas transported to consumers for the account of third parties or "spot-market" prices.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual.* Final monthly data are estimated by allocating annual consumption data from the Form EIA-176 to each month in proportion to monthly volumes reported in Form EIA-857.

Agricultural Use

Beginning with the reporting of 1996 annual data, the EIA changed the customer category used for reporting deliveries to consumers in the agricultural industry from commercial to industrial. In 1995 and earlier years, consumption of natural gas for agricultural use was classified as commercial use. Separate reports of the volumes affected are not available so the direct impact of this change is not known. Most natural gas consumed in agriculture is used to drive irrigation systems and to dry crops.

For the reporting of monthly data, the customer category will not be changed until 1998. In 1996, the monthly data reported under the old classification were adjusted to the annual data reported under the new classification. Monthly 1997 data will be adjusted in the same way as the 1996 data.

In comparing sectoral use over time, note that:

- There is an inherent shift in natural gas volumes from the commercial to industrial sectors due simply to changes in the reporting requirements. This break in series may indicate a spurious increase in industrial consumption with a corresponding decrease in the commercial sector.
- The sum of natural gas volumes consumed by the commercial and industrial sectors will not be changed by this modification of the instructions.

Electric Utility Sector Consumption

All Monthly Data

Monthly data published are from Form EIA-759.

Pipeline Fuel Consumption

Preliminary Monthly Data

Preliminary data are estimated based on the pipeline fuel consumption as an annual percentage of total consumption from the previous year's Form EIA-176. This percentage is applied to each month's total consumption figure to compute the monthly estimate.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual.* Final monthly data are based on the revised annual ratio of pipeline fuel consumption to total consumption from the Form EIA-176. This ratio is applied to each month's revised total consumption figure to compute final monthly pipeline fuel consumption estimates.

Lease and Plant Fuel Consumption

Preliminary Monthly Data

Preliminary monthly data are estimated based on lease and plant fuel consumption as an annual percentage of marketed production. This percentage is applied to each month's marketed production figure to compute estimated lease and plant fuel consumption.

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual.* Final monthly plant fuel data are based on a revised annual ratio of lease and plant fuel consumption to marketed production from Form EIA-176. This ratio is applied to each month's revised marketed production figure to compute final monthly plant fuel consumption estimates. Final monthly lease data are collected on the Form EIA-627 and estimates from the Form EIA-176. See the *Natural Gas Annual* for a complete discussion of this process.

Note 6. Extraction Loss

Annual Data

Extraction loss data are calculated from filings of Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." For a fuller discussion, see the *Natural Gas Annual.*

Preliminary Monthly Data

Preliminary data are estimated based on extraction loss as an annual percentage of marketed production. This percentage is applied to each month's marketed production to estimate monthly extraction loss.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual.* Final monthly data are estimated by allocating annual extraction loss data to each month based on its total natural gas marketed production.

Note 7. Natural Gas Storage

Underground Natural Gas Storage

All monthly data concerning underground storage are published from the EIA-191. A new EIA-191 became effective in January 1994. Injection and withdrawal data from the EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the *Natural Gas Annual.*

Underground and Liquefied Natural Gas Storage

The final monthly and annual storage and withdrawal data for 1991 through 1995 shown in Table 2 include both underground and liquefied natural gas (LNG) storage. Underground storage data are obtained from the EIA-191 and EIA-176 surveys in the manner described earlier. Annual data on LNG additions and withdrawals are taken from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying it to annual LNG data.

Types of Underground Storage Facilities

There are three principal types of underground storage facilities in operation in the United States today: salt caverns (caverns hollowed out in salt "bed" or "dome" formations), depleted fields (depleted reservoirs in oil and / or gas fields), and aquifer reservoirs (water-only reservoirs conditioned to hold natural gas). A storage facility's daily deliverability or withdrawal capability

is the amount of gas that can be withdrawn from it in a 24-hour period. Salt cavern storage facilities generally have high deliverability because all of the working gas in a given facility can be withdrawn in a relatively short period of time. (A typical salt cavern cycle is 10 days to deplete working gas, and 20 days to refill working gas.) By contrast, depleted field and aquifer reservoirs are designed and operated to withdraw all working gas over the course of an entire heating season (about 150 days). Further, while both traditional and salt cavern facilities can be switched from withdrawal to injection operations during the heating season, this is usually more quickly and easily done in salt cavern facilities, reflecting their greater operational flexibility.

Note 8. Average Wellhead Value

Annual Data

Form EIA-895 requests State agencies to report the quantity and value of marketed production. When complete data are unavailable, the form instructs the State agency to report the available value and the quantity of marketed production associated with this value. A number of States reported volumes of production and associated values for other than marketed production. In addition, information for several States which were unable to provide data was obtained from Form EIA-176. It should be noted that Form EIA-176 reports a fraction of State production. The imputed value of marketed production in each State is calculated by dividing the State's reported value by its associated production. This unit price is then applied to the quantity of the State's marketed production to derive the imputed value of marketed production.

Preliminary Monthly Data

A preliminary estimate of the U.S. gas price is made each month based on the change in the production-weighted gas price from five States: Kansas, Mississippi, New Mexico, Oklahoma, and Texas. Gas prices for these five States are used because both their gas production and value represent a substantial sample of the U.S. gas production and value (roughly 50 percent), and their prices are readily available and provide a consistent series. The latest preliminary U.S. gas price estimate is calculated by multiplying the preliminary U.S. gas price estimate for the prior month by the ratio of the five States' gas price for the latest month to that of the prior month. This estimate replaces the initial gas price estimate.

Final Monthly Data

Preliminary monthly gas price data for Kansas, Mississippi, New Mexico, Oklahoma, and Texas are replaced by final monthly data that are adjusted to match the annual prices published in the *Natural Gas Annual* for each State. A revised set of the monthly U.S. gas price estimates are derived based on the monthly change in the production-weighted prices for these five States and adjusted to match the U.S. gas price published in the Natural Gas Annual.

Note 9. Balancing Item

The "balancing item" category represents the difference between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data reporting problems.

Reporting problems include differences due to the net result of conversions of flow data metered at varying temperatures and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycles and calendar periods; and imbalances resulting from the merger of data reporting systems, which vary in scope, format, definitions, and type of respondents.

Annual Data

Annual data are from the *Natural Gas Annual.* For an explanation of the methodology involved in calculating annual "balancing item" data, see the *Natural Gas Annual.*

Preliminary Monthly Data

Preliminary monthly data in the "balancing item" category are calculated by subtracting dry gas production, withdrawals from storage, supplemental gaseous fuels, and imports from total supply / disposition.

Note 10. Heating Degree-Days

Degree-days are relative measurements of outdoor air temperature. Heating degree-days are deviations of the mean daily temperature below 65 degrees Fahrenheit. A weather station recording a mean daily temperature of 40 degrees Fahrenheit would report 25 heating degree-days. There are several degree-day data bases maintained by the National Oceanic and Atmpospheric Administration. The information published in the Natural Gas Monthly is developed by the National Weather Service Climate Analysis Center, Camp Springs, Maryland.

The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations arond the country. The temperature information recorded at these weather stations is used to calculate Statewide degree-day averages weighted by gas home cutomers. The State figures are then aggregated into Census Divisions and into the national average.

Appendix B

Data Sources

The data in this publication are taken from survey reports authorized by the U.S. Department of Energy (DOE), Energy Information Administration (EIA) and by the Federal Energy Regulatory Commission (FERC). The EIA is the independent statistical and analytical agency within the DOE. The FERC is an independent regulatory commission within the DOE which has jurisdiction primarily in the regulation of electric utilities and the interstate natural gas industry. The EIA conducts and processes some of the surveys authorized by the FERC. Data are collected from two annual surveys and four monthly surveys.

The annual reports are the Form EIA-176, a mandatory survey of all companies that deliver natural gas to consumers or that transport gas across State lines, and the Form EIA-627, a voluntary survey completed by energy or conservation agencies in the gas-producing States.

The monthly reports include two surveys of the natural gas industry and two surveys of the electric utility industry. The natural gas industry survey is the Form EIA-191 filed by companies that operate underground storage facilities, and the Form EIA-857 filed by a sample of companies that deliver natural gas to consumers. The electric utility industry surveys are the Form EIA-759 filed by all generating electric utilities and the Form FERC-423 filed by fossil fueled plants. Responses to these four monthly surveys are mandatory.

A description of the survey respondents, reporting requirements, and processing and editing of the data is given on the following pages for each of the surveys.

Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"

Survey Design

The original version of Form EIA-176 was approved in 1980 with a mandatory response requirement. Prior to 1980, published data were based on voluntary responses to Bureau of Mines, U.S. Department of the Interior predecessor Forms BOM-6-1340-A and BOM-6-1341-A of the same title.

In 1982, the scope of the revised EIA-176 survey was expanded to collect the number of electric utility consumers in each State, volumes of gas transported to industrial and electric utility consumers, detailed information on volumes transported across State borders by the respondent for others and for the responding company, and detailed information on other disposition. These changes were incorporated to provide more complete survey information with a minimal change in respondent burden. The 1982 version of the Form EIA-176 continues to be the basis for the current version of this form.

In 1988, the Form EIA-176 was revised to include data collection for deliveries of natural gas to commercial and industrial consumers for the account of others. A short version of Form EIA-176 was also approved in 1988. Companies engaged in purchase and delivery activities but not in transportation and storage activities may file the short form. Usually, these companies are municipals handling small volumes of gas.

In 1990, the Form EIA-176 was revised to include more detailed information for gas withdrawn from storage facilities, gas added to storage facilities, deliveries of company-owned natural gas and natural gas transported for the account of others. The revised form was approved for use beginning with report year 1990.

Upon the Office of Management and Budget's approval in 1993, the Form EIA-176 was again revised. All deliveries to consumers are now categorized as firm or interruptible. Commercial and industrial consumers are further categorized as nonutility power producers or as those excluding nonutility power producers.

Data reported on this form are no longer considered proprietary. Response to the form continues to be mandatory.

Survey Universe and Response Statistics

The Form EIA-176 is mailed to all identified interstate and intrastate natural gas pipeline companies, investor and municipally owned natural gas distributors, underground natural gas storage operators, synthetic natural gas plant operators, and field, well, or processing plant operators that deliver natural gas directly to consumers (including their own industrial facilities) and/or that transport gas to, across, or from a State border through field or gathering facilities.

Each company and its parent company or subsidiaries were required to file if they met the survey specifications. The original mailing in 1996 for report year 1995 totaled 1,991 questionnaire packages. To this original mailing, 11 names were added and 61 were deleted as a result of the survey processing. Additions were the result of comparisons of the mailing list to other survey mailing lists. Deletions resulted from post office returns and determinations that companies were out of business, sold, or not within the scope of the survey. After all updates, the survey universe was 1,941 responses from approximately 1,800 companies.

Following the original mailing, second request mailing, and nonrespondents followup, 1,911 responses were entered into the data base, and there were 30 nonrespondents.

Summary of Form EIA-176 Data Reporting Requirements

The EIA-176 is a multiline schedule for reporting all supplies of natural gas and supplemental gaseous fuels and their disposition within the State indicated. Respondents file completed forms with EIA in Washington, DC. Data for the report year are due by April 1 of the following year. Extensions of the filing deadline for up to 45 days are granted to any respondent on request.

All natural gas and supplemental gaseous fuels volumes are reported on a physical custody basis in thousand cubic feet (Mcf), and dollar values are reported to the nearest whole dollar. All volumes are reported at 14.73 pounds per square inch absolute pressure (psia) and 60 degrees Fahrenheit.

Routine Form EIA-176 Edit Checks

A series of manual and computerized edit checks are used to screen the Form EIA-176. The edits performed include validity, arithmetic, and analytical checks.

The incoming forms are reviewed prior to keying. This prescan determines if the respondent identification (ID) number and the company name and address are correct, if the data on the form appear complete and reasonable, and if the certifying information is complete.

Manual checks on the data are also made. Each form is prescanned to determine that data were reported on the correct lines. The flow of gas through interstate pipelines is checked at the company level to ensure that each delivery from a State is matched with a corresponding receipt in an adjoining State.

After the data are keyed, computer edit procedures are performed. Edit programs verify the report year, State code, and arithmetic totals. Further tests are made to ensure that all necessary data elements are present and that the data are reasonable and internally consistent. The computerized edit system produces error listings with messages for each failed edit test. When problems occur, respondents are contacted by telephone and required to file amended forms with corrected data.

Other EIA Publications Referencing Form EIA-176

Data from Form EIA-176 are also published in the *Natural Gas Annual.*

Form EIA-895, "Monthly Quantity of Natural Gas Report"

Survey Design

In 1996, an annual schedule was added to the Form EIA-895 to replace the Form EIA-627. Data collection on the Form EIA-895 began in January 1995. This form was designed to replace the Interstate Oil and Gas Compact Commission (IOGCC) form, "Monthly Report of Natural Gas Production." In 1994, the IOGCC decided to discontinue collection of their form. All gas producing States are requested to report on the Form EIA-895; a voluntary report. Data are reported by State agencies. The form was designed to provide a standard reporting system, to the extent possible, for the natural gas data reported by the States. Data are not considered proprietary.

Beginning with 1980, natural gas production data previously obtained on an informal basis from State conservation agencies were collected on Form EIA-627. This form was designed by EIA to collect annual natural gas production data from the appropriate State agencies under a standard data reporting system within the limits imposed by the diversity of data collection systems of the various producing States. The form was redesigned in 1990 to collect monthly breakdowns of all annual data elements. Data are not considered proprietary. It was also designed to avoid duplication of effort in collecting production and value data by producing States and to avoid an unnecessary respondent burden on gas and oil well operators. In 1993, value and associated volume of marketed production by month was added to the EIA-627. In 1996, the Form EIA-627 was discontinued. The information is collected on an annual schedule on the Form EIA-895.

Survey Universe and Response Statistics

Form EIA-895 is mailed to energy or conservation agencies in all 33 natural gas producing States. All producing States participate voluntarily in the EIA-895 survey by filing the completed form or by responding to telephone contacts.

Reports on State production are due 20 days after the end of the report month. (In most cases, the data are not available to the States until after this time period. Therefore, States are requested to send the report within 80 days after the end of the report month.) The annual schedule of the Form EIA-895 is due with the December data report.

Summary of Data Requirements

The Form EIA-895 monthly schedule consists of nine questions on one page, and requires volumetric information on gross production (gas and oil wells individually), gas used for repressuring, gas vented and flared, nonhydrocarbon gases removed, natural gas used as fuel on leases, marketed production, value based marketed production and the value in dollar amount of the marketed production.

Form EIA-895 annual schedule collects data on the monthly and annual production volume of natural gas (including gross withdrawals from both gas and oil wells); volumes returned to formation for repressuring, pressure maintenance, and cycling; quantities vented and flared; quantities of nonhydrocarbon gases removed; quantities of fuel used on leases; marketed production; the value of marketed production; and the number of producing gas wells.

Respondents are asked to report all volumes in thousand cubic feet at the State's standard pressure base and at 60 degrees Fahrenheit. All dollar values are reported in thousands.

Routine Form EIA-895 Edit Checks

Each filing of Form EIA-895 is manually checked for reasonableness and mathematical accuracy. Information on the forms is compared to totals of monthly data reported. Volumes are converted, as necessary, to a standard 14.73 psia pressure base. Reasonableness of data is assessed by comparing reported data to the previous year's data. State agencies are contacted by telephone to correct errors. Amended filings or resubmissions are not a requirement, since participation in the survey is voluntary.

Other EIA Publications Referencing Form EIA-895

Data from Form EIA-895 are also published in the EIA publication, *Natural Gas Annual.*

EIA-191 Survey, "Underground Natural Gas Storage Report"

Survey Design

The Form EIA-191, "Underground Natural Gas Storage Report," was revised effective January 1994. Among the changes from the form used from 1991 through 1993 are a distinction between a monthly and annual survey. Prior to 1991, data on the storage of natural gas were collected on a survey jointly implemented in 1975 by the Federal Power Commission (FPC), the Federal Energy Administration (FEA), and the Bureau of Mines (BOM) as the FPC-8/ FEA-G-318 system. The data received on both the FPC-8 and FEA-G-318 were computerized and aggregated by FPC. The form was previously revised in 1991 to include storage data by State, field, and reservoir.
At the beginning of 1979, the EIA assumed responsibility for the collection, processing, and publication of the data gathered in the survey. Form FEA-G-318 was renewed on July 1, 1979, as Form EIA-191 and the survey was retitled the FPC-8/EIA-191 Survey (Figure D4 shows the EIA-191). Form FPC-8 was renewed in December 1985 and the survey retitled FERC-8/EIA-191 Survey. The forms were not merged because of FERC's stated desire to maintain the separate identity of the FERC-8 for administrative reasons. In September 1995, the FERC discontinued the reporting requirements of Form FERC-8. FERC jurisdictional firms will continue to file Form EIA-191.

Survey Universe and Response Statistics

The 103 companies that operate underground facilities will file the Form EIA-191. Of these companies, 42 are subject to the jurisdiction of FERC and are required to report data on Form EIA-191.

The response rate as of the filing deadline is approximately 20 percent. Data from the remaining 80 percent of respondents are received in writing and/or by telephone within 3 to 4 days after the filing deadline. All data supplied by telephone are subsequently filed in writing, generally within 15 days of the filing deadline. The final response rate is 100 percent.

Summary of EIA-191 Data Reporting Requirements

The EIA-191 monthly schedule contains current month and prior month's data on the total quantities of gas in storage, injections and withdrawals, the location (including State and county, field, reservoir) and peak day withdrawals during the reporting period. Prior month's data are required only when data are revised. Information on co-owners of storage fields has been eliminated. The annual schedule contains type of facility, storage field capacity, maximum deliverability and pipelines to which each field is connected. The annual schedule is filed with the January submission.

Collection of the survey is on a custody basis. Information requested must be provided within 20 days after the first day of each month. Twelve reports are required per calendar year. Respondents are required to indicate whether the data reported are actual or estimated. For most of the estimated filings, the actual data or necessary revisions are reflected in the prior month section of the monthly form. Actual data on natural gas injections and withdrawals from underground storage are based on metered quantities. Data on quantities of gas in storage and on storage capacity represent, in part, reservoir engineering evaluations. All volumes are reported at 14.73 psia and 60 degrees Fahrenheit.

Routine Form EIA-191 Edit Checks

Data received on Form EIA-191 are entered into the survey processing system. The survey's five principal data elements (total, base, working gas in storage, injections, and withdrawals) receive a preliminary visual edit to eliminate and correct obvious errors or omissions. Respondents are required to refile reports containing any inconsistencies or errors.

Other EIA Publications Referencing Form EIA-191

The EIA publication *Monthly Energy Review* and *Winter Fuels Report* contain data from the EIA-191 survey.

"Quarterly Natural Gas Import and Export Sales and Price Report"

Survey Design

The collection of data covering natural gas imports and exports was begun in 1973 by the Federal Power Commission (FPC). On October 1977, FPC ceased to exist and its data collection functions were transferred to the Federal Energy Regulatory Commission (FERC) within the Department of Energy (DOE). From 1979 to 1994, the Energy Information Administration (EIA) has had the responsibility for collecting Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." Data are not considered proprietary. The Form FPC-14 was discontinued in 1995.

Beginning in 1995, import and export data are taken from the "Quarterly Natural Gas Import and Export Sales and Price Report." This report is prepared by the Office of Fossil Energy, U.S. Department of Energy, based on information submitted by all firms having authorization to import or export natural gas.

Survey Universe and Response Statistics

All companies are required, as a condition of their authorizations to import or export natural gas, to file quarterly reports with the Office of Fossil Energy. These data are collected as part of its regulatory responsibilities. The data are reported at a monthly level of detail. Data reported on the Form FPC-14 represented physical movements of natural gas. Data collected by the Office of Fossil Energy are reported on an equity (sales) basis. For 1994 and earlier years, comparisons of the data from the two sources may show differences because reporting requirements were different.

Prior to 1995, the Form FPC-14 was filed annually by each organization or individual having authority to import and export natural gas regardless of whether any activity took place during the reporting year. Authorizations to import and export was originally granted by the FPC. In 1977, the authority to grant authorizations transferred to the Economic Regulatory Administration (ERA). It now resides with the Office of Fossil Energy, U.S. Department of Energy.

Routine Edit Checks

Respondents are required to certify the accuracy of all data reported. The data are checked for reasonableness and accuracy. If errors are found, the companies are required to file corrected data. The data are compared with data reported by the National Energy Board of Canada and are published quarterly. All natural gas volumes in this report are expressed at a pressure base of 14.73 pounds per square inch absolute and temperature of 60 degrees Fahrenheit, except as noted. All import and export prices are in U.S. dollars and, except for LNG exports, are those paid at the U.S. border. LNG export prices are those paid at the point of sale and delivery in Yokohama, Japan.

Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"

Survey Design

The original Form EIA-857 was approved for use in December 1984. Response to the Form EIA-857 is mandatory on a monthly basis. Data collected on the Form EIA-857 cover the 50 States and the District of Columbia and include both price and volume data. Data are considered proprietary.

Survey Universe and Response Statistics

A sample of 382 natural gas companies, including interstate pipelines, intrastate pipelines, and local distribution companies, report to the survey. The sample was selected independently for each of the 50 States and the District of Columbia from a frame consisting of all respondents to Form EIA-176 who reported deliveries of natural gas to consumers in the residential, commercial, or industrial sectors. Each selected company is required to complete and file the Form EIA-857 on a monthly basis. Initial response statistics on a monthly basis are as follows: responses received by due date, approximately 50 percent, and responses received after follow-up, 100 percent. Virtually all are received in time for incorporation in the current month's processing cycle. When a response is extremely late, and the company represents less than 25 percent of the natural gas volumes delivered by all sampled companies in the State, values are imputed as described in Appendix C. When the company's submission is eventually received, the submitted data are used for future processing and revisions.

The Form EIA-857 is a monthly sample survey of firms delivering natural gas to consumers. It provides data that are used to estimate monthly sales of natural gas (volume and price) by State and monthly deliveries of natural gas on behalf of others (volume) by State to three consumer sectors - residential, commercial, and industrial. (Monthly deliveries and prices of natural gas to electric utilities are reported on the Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and the Form EIA-759, "Monthly Power Plant Report.") See Appendix C for a discussion of the sample design and estimation procedures.

Summary of Form EIA-857 Data Reporting Requirements

Data collected monthly on the Form EIA-857 on a State level include the volume and cost of purchased gas, the volume and cost of natural gas consumed by sector (residential, commercial, and industrial), and the average heat content of all gas consumed. Respondents file completed forms with EIA in Washington, DC on or before the 30th day after the end of the report month.

All natural gas volumes are reported in thousand cubic feet at 14.73 psia at 60 degrees Fahrenheit and dollar values are reported to the nearest whole dollar.

Routine Form EIA-857 Edit Checks

A series of manual and computerized edit checks are used to screen the Form EIA-857. The edits performed include validity and analytical checks.

Appendix C

Statistical Considerations

The monthly sales (volume and price) and monthly deliveries (volume) of natural gas to residential, commercial and industrial consumers presented in this report by State are estimated from data reported on the Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers." (See Appendix B for a description of this Form.) These estimations must be made from the reported data since the Form EIA-857 is a sample survey. A description of the sample design and the estimation procedures is given below.

Sample Design

The Form EIA-857 is a monthly sample survey of companies delivering natural gas to consumers. It includes inter- and intrastate companies, and producers, as well as local distribution companies. The survey provides data that are used each month to estimate the volume of natural gas delivered and the price for onsystem sales of natural gas by State to three consumer sectors--residential, commercial, and industrial. Monthly deliveries and prices of natural gas to electric utilities are reported on the Form EIA-759, "Monthly Power Plant Report," and the Form FERC-423, "Monthly Report of Costs and Quality of Fuels for Electric Plants."

Sample Universe. The sample currently in use was selected from a universe of 1,538 companies. These companies were respondents to the Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," for reporting year 1995 who reported sales or deliveries to consumers in the residential, commercial or industrial sectors. (See Appendix B for a description of the Form EIA-176.)

Sampling Plan. The goal was a sample that would provide estimates of monthly natural gas consumption by the three consuming sectors within each State and the District of Columbia. A stratified sample using a single stage and systematic selection with probability proportional to size was designed. The measure of size was the volume of natural gas physically delivered in the State to the three consuming sectors by the company in 1995. There were two strata--companies selected with certainty and companies selected under the systematic probability proportional to size design.

Initial calculations showed that a 25 percent sample of companies would yield reasonably accurate estimates. The sample was selected independently in each State, resulting in a national total of 387 respondent companies. Unlike previous years, no mergers or acquisitions were uncovered as a result of the initial mail-out. Therefore there was no need for either substitution of respondent companies or a reduction in the total number of respondents.

Certainty Stratum. Since estimates were needed for each of the 50 States and the District of Columbia, the strata were established independently within each State. In 16 States and the District of Columbia where sampling was not feasible due to small numbers of companies and/or small volumes of gas deliveries, all companies were selected. The 16 States were: Alaska, Connecticut, Delaware, Hawaii, Idaho, Maine, North Dakota, New Hampshire, New Jersey, Nevada, Oregon, Rhode Island, South Dakota, Utah, Vermont, and Washington.

For each of the remaining States, the total volumes of industrial sales and deliveries and of the combined residential/commercial sales and deliveries were determined. Companies with natural gas deliveries to the industrial sector or to the combined residential/commercial sector above a certain level were selected with certainty. Since a few large companies often account for most of the natural gas delivered within a State, this ensures those companies' inclusion in the sample. The formula for determining certainty was applied independently in the two consumer sectors--the industrial and the combined residential/commercial. These selected companies, together with the companies in the jurisdictions discussed where sampling was not feasible, formed the certainty stratum.

All companies with natural gas deliveries in sector j greater than the cut-off value ($C_{.j}$) were included in the certainty stratum. The formula for $C_{.j}$ was:

$$C_{.j} = \frac{X_{.j}}{2n} \qquad (1)$$

where:

$C_{.j}$ = cutoff value for consumer sector j,

n = target sample size to be selected for the State, 25 percent of the companies in the State,

X_{ij} = the annual volume of natural gas deliveries by company i to customers in consumer sector j,

$X_{i.}$ = the sum within State of annual gas volumes for company i,

$X_{.j}$ = the sum within State of annual gas volumes in consumer sector j,

$X_{..}$ = the sum within State of annual gas volumes in all consumer sectors.

Noncertainty Stratum. All other companies formed the noncertainty stratum. They were systematically sampled with probability proportional to size. The measure of size for each company was the total volume of gas sales to all consumer sectors ($X_{i.}$). The number of companies to be selected from the noncertainty stratum was calculated for each State, with a minimum of 2.

The formula for selecting the number of noncertainty stratum companies was:

$$m = n\,\frac{X2}{X_{..}} \qquad (2)$$

where:
m = the sample size for the noncertainty stratum within a State,
X2 = the sum within State of the $X_{i.}$ for all companies in the noncertainty stratum.
Companies were listed in ascending order according to their measure of size and then a cumulative measure of size in the stratum was calculated for each company. The cumulative measure of size was the sum of the measures of size for that company and all preceding companies on the list. An interval of width I for selecting the companies systematically was calculated using $(I = \frac{X2}{m})$. A uniform random number R was selected between zero and I. The first sampled company was the first company on the list to have a cumulative measure of size greater than R. The second company selected was the first company on the list to have a cumulative measure of size greater than R + I. R + I was increased again by I to determine the third company to be selected. This procedure was repeated until the entire sample was drawn.

Subgroups. In eight States, the noncertainty stratum was divided into subgroups to ensure that gas in each consumer sector could be estimated. The systematic sample with probability proportional to size design described above was applied independently in each subgroup. The methods for determining the subgroup sample size and calculating the subgroup interval for sample selection were the same as the methods described above for the noncertainty stratum, except that X2 was the sum within State of the $X_{i.}$ for only those companies in the subgroup.

These subgroups were defined only for the purpose of sample selection. They are:

California: companies handling only industrial gas and all other companies.

Iowa: companies handling industrial gas and companies delivering only to residential or commercial customers.
Louisiana: companies handling only industrial gas and all other companies, with the latter being further subdivided according to size. The larger group is comprised of all companies with total deliveries of at least 200 million cubic feet while the smaller group consists of companies with less than that volume of delivered gas (three subgroups).

Oklahoma: Companies delivering less than 500 million cubic feet of gas and those delivering more than that volume.

Texas: companies handling only residential/commercial gas, companies handling only industrial gas, and all other companies (three subgroups).

Estimation Procedures

Estimates of Volumes. A ratio estimator is applied to the volumes reported in each State by the sampled companies to estimate the total gas sales and deliveries for the State. Ratio estimators are calculated for each consumer sector—residential, commercial, and industrial—in each State where companies are sampled.

The following annual data are taken from the most recent 1995 submissions of Form EIA-176:

The formula for calculating the ratio estimator (E_{vj}) for the volume of gas in consumer sector j is:

$$E_{vj} = \frac{Y_j}{Y'_j} \qquad (3)$$

where:

Y_j = the sum within State of annual gas volumes in consumer sector j for all companies,

Y'_j = the sum within State of annual gas volumes in consumer sector j for those companies in the sample.

The ratio estimator is applied as follows:

$$V_j = y_j \times E_{vj} \qquad (4)$$

where:

V_j = the State estimate of monthly gas volumes in consumer sector j,
y_j = the sum within State of reported monthly gas volumes in consumer sector j.

Computation of Natural Gas Prices. The natural gas volumes that are included in the computation of prices represent only those volumes associated with natural gas sales.
The price of natural gas for a State within a sector is calculated as follows:

$$P_j = \frac{R_j}{V'_j}$$

where:

P_j = the average price for gas sales within the State in consumer sector j,

R_j = the reported revenue from natural gas sales within the State in consumer sector j,

V_j = the reported volume of natural gas sales within the State in consumer sector j.

All average prices are weighted by their corresponding sales volume estimates when national average prices are computed.
The monthly average prices of natural gas are based on sales data only. Volumes of gas delivered for the account of others to these consumer sectors are not included in the State or national average prices.

Table 25 shows the percent of the total State volume that represents volumes from natural gas sales to the commercial and industrial sectors. This table may be helpful in evaluating commercial and industrial price data. Virtually all natural gas deliveries to the residential sector represent onsystem sales volumes only.

See the section on consumer price calculations in this Appendix for further price information.

Estimation for Nonrespondents. A volume for each consumer category is imputed for companies that fail to respond. The imputation is based on the previous month's value reported by the non-responding company and the change from the previous month to the current month in volumes reported by other companies in the State. The imputed volumes are included in the State totals. To estimate prices for non-respondents, the unit price (dollars per thousand cubic feet) reported by the company in the previous month is used.

The formula for imputing volumes of gas sales for nonrespondents was:

$$F_t = F_{t-1} \times \frac{y_{jt}}{y_{j}t-1} \qquad (5)$$

where:

F_t = imputed gas volume for current month t,

F_{t-1} = gas volume for the company for the previous month,

y_{jt} = gas volume reported by companies in the State stratum for report month t,

$y_{j}t-1$ = gas volume in the previous month for companies in the State stratum that reported in month t.

Final Revisions

Adjusting Monthly Data to Annual Data. After the annual data reported on the Form EIA-176 have been submitted, edited, and prepared for publication in the *Natural Gas Annual*, revisions are made to monthly data. The revisions are made to the volumes and prices of natural gas delivered to consumers that have appeared in the *Natural Gas Monthly* to match them to the annual values appearing in the *Natural Gas Annual.*
The revised monthly estimates allocate the difference between the sum of monthly estimates and the annual reports according to the distribution of the estimated values across the months.

Before the final revisions are made, changes or additions to submitted data received after publication of the monthly estimate and not sufficiently large to require a revision to be published in the *Natural Gas Monthly*, are used to derive an updated estimate of monthly consumption and revenues for each State's residential, commercial, or industrial natural gas consumption.

For each State, two numbers are revised, the estimated consumption and the estimated price per thousand cubic feet.

The formula for revising the estimated consumption is:

$$V^{*}_{jm} = V_{jm} + \left[(V_{ja} - V'_{jm})\left(\frac{V_{jm}}{V'_{jm}}\right) \right] \qquad (6)$$

where:

V^{*}_{jm} = the final volume estimate for month m in consumer sector j,

V_{jm} = the estimated volume for month m in consumer sector j,
V_{ja} = the volume for the year reported on Form EIA-176,

V'_{jm} = The annual sum of estimated monthly volumes.

The price is calculated as described above in the Estimation Procedures section, using the final revised consumption estimate and a revised revenue estimate.
The formula for revising the estimated revenue is:

$$R^{*}_{jm} = R_{jm} + \left[(R_{ja} - R'_{jm})\left(\frac{R_{jm}}{R'_{jm}}\right) \right] \qquad (7)$$

where:

R^{*}_{jm} = the final revenue estimate for month m in consumer sector j,

R_{jm} = the estimated revenue for month m in consumer sector j,

R_{ja} = the revenue for the year reported on Form EIA-176,

R'_{jm} = The annual sum of estimated monthly revenues.
Revision of Volumes and Prices for Deliveries to Electric Utilities. Revisions to monthly electric utilities data are published throughout the year as they become available.

Reliability of Monthly Data

The monthly data published in this report are subject to two sources of error - nonsampling error and sampling error. Nonsampling errors occur in the collection and processing of the data. See the discussion of the Form EIA-857 in Appendix B for a description of nonsampling errors for monthly data.

Sampling error may be defined as the difference between the results obtained from a sample and the results that a complete enumeration would provide. The standard error statistic is a measurement of sampling error.

Standard Errors. A standard error of an estimate is a statistical measure that indicates how the estimate from the sample compares to the result from a complete enumeration. Standard errors are calculated based on statistical theory that refers to all possible samples of the same size and design.

The standard errors for monthly natural gas volume estimates by State are given in Table C1. Ninety-five percent of the time, the volume that would have been obtained from a complete enumeration will lie in the range between the estimated volume minus two standard errors and the estimated volume plus two standard errors.

The standard error of the natural gas volume estimate is the square root of the variance of the estimate. The formula for calculating the variance of the volume estimate is:

$$V(\hat{Y}) = \sum_{h=1}^{H} \left[N_h^2 \frac{\left(1 - \frac{n_h}{N_h}\right)}{n_h (n_h - 1)} \left(\sum_{i=1} (y_i - T x_i)^2 \right) \right] \qquad (8)$$

where:

H = the total number of strata

N_h = the total number of companies in stratum h
n_h = the sample size in stratum h
y_i = the reported monthly volume for company i

x_i = the reported annual volume for company i

T = the ratio of the sum of the reported monthly volumes for sample companies to the sum of the reported annual volumes for the sample companies.

Table C-1. Standard Error for Natural Gas Deliveries and Price to Consumers by State, December 1997

State	Volume Million Cubic Feet				Price Dollars per Thousand Cubic Feet		
	Residential	Commercial	Industrial	Total	Residential	Commercial	Industrial
Alabama	654	200	1,402	1,560	0.19	0.12	0.57
Alaska	0	0	0	0	—	—	—
Arizona	163	26	0	165	0.15	0.13	—
Arkansas	0	0	0	0	—	—	—
California	505	234	366	666	0.06	0.10	0.14
Colorado	4,429	2,131	498	4,941	0.60	0.40	0.42
Connecticut	0	0	0	0	—	—	—
Delaware	0	0	0	0	—	—	—
District of Columbia	0	0	0	0	—	—	—
Florida	100	391	51	407	0.77	0.62	1.32
Georgia	224	220	1,719	1,747	0.18	0.21	0.22
Hawaii	0	0	0	0	—	—	—
Idaho	0	0	0	0	—	—	—
Illinois	461	2,790	4,713	5,496	0.12	0.20	0.44
Indiana	NA	NA	NA	NA	NA	NA	NA
Iowa	1,273	299	15	1,307	0.65	0.14	0.14
Kansas	NA	NA	NA	NA	NA	NA	NA
Kentucky	307	106	312	451	0.09	0.17	2.82
Louisiana	5,053	341	3,785	6,323	3.89	0.63	—
Maine	0	0	0	0	—	—	—
Maryland	8	13	50	52	—	0.01	0.09
Massachusetts	222	1,088	9,623	9,687	0.04	0.29	1.92
Michigan	1,301	518	3,249	3,538	0.21	0.19	0.43
Minnesota	1,599	409	1,062	1,963	0.25	0.12	0.07
Mississippi	227	111	1,251	1,277	0.40	0.38	0.61
Missouri	1,322	687	759	1,672	0.46	0.54	1.17
Montana	6	7	0	10	0.01	0.01	—
Nebraska	51	63	197	213	0.22	0.12	0.40
Nevada	0	0	0	0	—	—	—
New Hampshire	0	0	0	0	—	—	—
New Jersey	0	0	0	0	—	—	—
New Mexico	2,007	574	878	2,265	0.69	1.27	—
New York	NA	NA	NA	NA	NA	NA	NA
North Carolina	43	21	613	615	0.07	0.06	0.09
North Dakota	0	0	0	0	—	—	—
Ohio	0	0	0	0	—	—	—
Oklahoma	232	2,930	1,158	3,159	0.28	2.18	0.28
Oregon	0	0	0	0	—	—	—
Pennsylvania	438	2,020	4,381	4,844	0.14	0.30	4.16
Rhode Island	0	0	0	0	—	—	—
South Carolina	489	81	174	526	0.36	0.15	0.18
South Dakota	0	0	0	0	—	—	—
Tennessee	449	428	1,120	1,281	0.11	0.31	0.93
Texas	1,785	2,185	37,699	37,804	0.31	0.44	0.01
Utah	0	0	0	0	—	—	—
Vermont	0	0	0	0	—	—	—
Virginia	718	1,100	468	1,395	0.42	1.10	1.36
Washington	NA	NA	NA	NA	NA	NA	NA
West Virginia	3,107	581	113	3,163	2.32	1.00	0.04
Wisconsin	399	863	884	1,298	0.16	0.15	0.92
Wyoming	268	101	105	305	0.18	0.24	0.31
Total	8,691	5,995	40,121	41,487	0.05	0.10	0.52

NA = Not Available.
— = Not Applicable.
Source: Energy Information Administration, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Appendix D

Natural Gas Reports and Feature Articles

Reports Dealing Principally with Natural Gas and/or Natural Gas Liquids

- *Natural Gas Annual 1995,* DOE/EIA-0131(95), November 1996.
- *Natural Gas Annual 1993 Supplement: Company Profiles,*DOE/EIA-0131(93/S), February 1995.

Other Reports Covering Natural Gas, Natural Gas Liquids, and Other Energy Sources

- *Monthly Energy Review,* DOE/EIA-0035. Published monthly. Provides national aggregate data for natural gas, natural gas liquids, and other energy sources.
- *Short-Term Energy Outlook,* DOE/EIA-0202. Published quarterly. Provides forecasts for next six quarters for natural gas and other energy sources.
- *Natural Gas 1995: Issues and Trends,* DOE/EIA-0560(95), November 1995.
- *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves - 1995 Annual Report,* DOE/EIA-0216(95)/Advance Summary, October 1996.
- *Annual Energy Review 1995,* DOE/ EIA-0384(95), July 1996. Published annually.
- *Annual Report to Congress 1995 DOE/ EIA-01733(95), July 1996. Published annually.*
- *Annual Energy Outlook 1996,* DOE/ EIA-0383(96), January 1996. Published annually.

Selected One-Time Natural Gas and Related Reports

- *The Value of Underground Storage in Today's Natural Gas Industry,* DOE/EIA-0591, March 1995.
- *Natural Gas Productive Capacity for the Lower 48 States, 1980 through 1995,* DOE/EIA-0542(95), July 1994.
- *Largest U.S. Oil and Gas Fields,* DOE/EIA-TR-0567, August 1993.
- *Energy Policy Act Transportation Rate Study,* DOE/EIA-0571, October 1993.
- *Energy Policy Act Transportation Study: Interim Report of Natural Gas Flows and Rates,* DOE/EIA-0602, October 1995.

Selected and Recurring Natural Gas and Related Data Reference Reports

- *Directory of Energy Data Collection Forms,* DOE/EIA-0249(95), January 1996.
- *Oil and Gas Field Code Master List, 1995,* EIA-0370(95), December 1996.

Feature Articles

January 1994

U.S. Coalbed Methane Production

(Updates the Energy Information Administration's coalbed methane production information through 1992 and presents it by geologic basin and by State.)

February 1994

Contracting for Natural Gas Supplies

(Addresses the contractual relationships of producers with end users and distributors for the natural gas that is shipped along the interstate pipeline systems.)

May 1994

Opportunities with Fuel Cells

(Discusses the uses of fuel cells in todays market.)

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

June 1994

Natural Gas 1994: Issues and Trends - Executive Summary

(Provides an overview of the natural gas industry in 1993 focusing on trends in production, consumption, and pricing of natural gas.)

August 1994

U.S. Natural Gas Imports and Exports - 1993

(Contains final 1993 data on all U.S. imports and exports of natural gas.)

March 1995

The Comparability of Resource and Reserve Data for Crude Oil, Natural Gas, Coal, and Uranium

(Clarifies which terms are equivalent among the four major energy minerals in the United States.)

July 1995

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

June 1996

Natural Gas Industry Restructuring and Data Collection

(Discusses how restructuring of the natural gas industry has impacted the natural gas data collection efforts.)

July 1996

Revisions to Monthly Natural Gas Data
(Discusses the revision errors for natural gas data.)

November 1996

U.S. Natural Gas Imports and Exports - 1995

(Contains final 1995 data on all U.S. imports and exports of natural gas.)

December 1996

Crosswell Seismology -- A View from Aside

(Discusses crosswell seismology and its geologic and economic implications for the domestic oil and gas industry.)

May 1997

Restructuring Energy Industries: Lessons from Natural Gas

(Compares and contrasts the natural gas and electric power industries.)

July 1997

Intricate Puzzle of Oil and Gas "Reserves Growth"

(Discusses the factors that affect ultimate recovery estimates of a field or reservoir.)

August 1997

Natural gas Residential Pricing Developments During the 1996-97 Winter

(Discusses key factors that affect pricing patterns, highlights the effects of weather, utilization patterns of natural gas storage, and pricing mechanisms used in natural gas markets.)

December 1997

Recent Trends in Natural Gas Spot Prices

(Focuses primarily on conditions and developments in the East Consuming Region and their connection to prices at the Henry Hub in the Producing Region.)

Special Focuses

January 1997

Natural Gas Productive Capacity

(Analyzes monthly natural gas wellhead productive capacity in the lower 48 States from 1985 and 1996 and project this capacity for 1996 and 1997.)

Outlook for Natural Gas Through 2015

(Presents an outlook for natural gas through 2015.)

August 1997

Worldwide Natural Gas Supply and Demand And the Outlook For Global LNG Trade
(Focuses on natural gas into the next century with emphasis on world natural gas supply and demand to 2015.)

September 1997

Advance Summary: U.S. Crude Oil, Natural Gas, and Natural gas Liquids Reserves, 1996 Annual Report - Advance Summary

(Focuses on proved reserves of domestic crude oil, natural gas, and natural gas liquids.)

Special Reports

March 1997

Natural Gas Analysis and Geographic Information Systems

(Explores how geographic information system techniques and methodologies are being used by the Energy Information Administration.)

April 1997

Natural Gas Pipeline and System Expansions

(Examines recent expansions to the North American natural gas pipeline network.)

July 1997

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

Natural Gas 1996: Highlights

(Reviews data for 1996 based on Energy Information Administration surveys.)

August 1997

U.S. Natural gas Imports and Exports - 1996

(Contains final 1996 data on all U.S. imports and exports of natural gas.)

September 1997

U.S. Underground Storage of Natural Gas in 1997: Existing and Proposed

(Examines recent and proposed expansions of underground natural gas storage capacity and deliverability in the United States as of September 1, 1997.)

October 1997

Comparison of Natural Gas Storage Estimates from the EIA and AGA

(Compares EIA and AGA estimates from January 1994 through July 1997.)

Appendix E

Technical Contacts

Section	Tables		Principal Data Sources	Technical Contact
Summary Statistics:				
Natural Gas Production	1, 2, 3	Monthly: Annual:	EIA-895, "Monthly Quantity of Natural Gas Report"	Sharon Belcher (202) 586-6119
		Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202) 586-4790
Extraction Loss	1	Monthly: Annual:	EIA computations Form EIA-816, "Monthly Natural Gas Liquids Report" and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"	Margo Natof (202) 586-6303
Supplemental Gaseous Fuels	2	Monthly: Annual:	EIA computations Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"	Margo Natof (202) 586-6303
Imports and Exports	2	Monthly: Annual:	EIA computations Office of Fossil Energy, U.S. Department of Energy, "Natural Gas Import and Exports"	Linda Cook (202) 586-6306
Price:				
City Gate, Residential, Commercial, and Industrial	4	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202) 586-4790
Wellhead	4	Monthly: Annual:	EIA computations Form EIA-895, "Monthly Quantity and Value of Natural Gas Report"	Sylvia Norris (202) 586-6106
Electric Utility	4	Monthly:	Form FPC-423, "Cost and Quality of Fuels for Electric Power Plants"	Roy Kass (202) 586-4790
Summary of Natural Gas Imports and Exports	5,6	Monthly:	Quaterly Natural Gas Import and and Export Sales and Price Report	Linda Cook (202) 586-6306
Producer Related Activities:				
Natural Gas Production	7,8	Monthly:	EIA-895, "Monthly Quantity of Natural Gas Report"	Sharon Belcher (202) 586-6119

Underground Storage:	9, 10, 11 12, 13, 14	Monthly:	Forms FERC-8 and EIA-191, "Underground Gas Storage Report"	Carol Jones (202) 586-6168
Distribution and Consumption:				
Deliveries to:				
Residential,	15	Monthly:	Form EIA-857, "Monthly Report of	Roy Kass
Commercial,	16		Natural Gas Purchases and Deliveries	(202) 586-4790
Industrial,	17		to Consumers"	
Electric Utility,	18		Form FERC-423, "Cost and Quality	
All Consumers	19		of Fuels for Electric Power Plants"	
Average Price to:				
City Gate,	20	Monthly:	Form EIA-857, "Monthly Report of	Roy Kass
Residential,	21		Natural Gas Purchases and Deliveries	(202) 586-4790
Commercial,	22		to Consumers"	
Industrial,	23		Form FERC-423, "Cost and Quality	
Electric Utility	24		of Fuels for Electric Power Plants"	
Onsystem Sales	25	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202) 586-4790
Heating Degree Days	26	Seasonal:	National Oceanic and Atmospheric Administration	Patricia Wells (202) 586-6077
Highlights				Mary Carlson (202) 586-4749

Appendix F

Natural Gas Electronic Products

In addition to printed publications, the Energy Information Administration distributes information concerning the natural gas industry in a variety of electronic formats through several media. Two main types of products are available electronically: *viewable documents* that may be read or printed; and *post-processable files* that may be directly used as input to a computer application without additional keying and checking of data.

Viewable documents represent complete or selected sections of publications including text, tables and graphs. They may be as specific as single tables or as general as an entire publication. Post-processable documents on the other hand are either macro-level representations of information in published tables or micro-level respondent information representing responses on a specific nonconfidential survey.

The media used to distribute these electronic publications include: (1) The Energy Information Administration's Internet site (http://www.eia.doe.gov or ftp://ftp.eia.doe.gov); (2) Dial-in access through the Energy Information Administration's EPUB electronic bulletin board or through the Economic Bulletin Board of the Department of Commerce and the COGIS system; (3) The Energy Information Administration's quarterly CD-ROM(Info-Disk); (4) The Energy Information Admi- nistration's Fax on Demand System; and (5) diskettes.

	Internet	Dial-In	InfoDisk	Fax	Diskette
ANNUAL PUBLICATIONS					
Natural Gas Annual, Volume 1, 1994 Provides information on supply, and disposition of natural gas in the United States.Information is provided nationally, regionally, and by State for 1994.	V P		V P		P
Natural Gas Annual, Volume 2, 1994 Contains historical information about supply and disposition of natural gas at the national, regional, and State level as well as prices at selected points in the flow of gas from wellhead to burnertip.	P		P		P
Natural Gas 1995: Issues and Trends Addresses current issues affecting the natural gas industry and markets, and analyzes trends in the most recent natural gas data.	V		V		
Natural Gas 1994: Issues and Trends Provides an overview of the natural gas industry in 1993 and early 1994, focusing on the overall ability to deliver gas under the new regulatory mandates of the Federal Energy Regulatory Commission's Order 636.	V		V		
Oil and Gas Products List 1994-1995 Brief descriptions of the various information products prepared by the Office of Oil and Gas.	V		V		
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report 1994 1994 national and State estimates of reserves, reserve changes, and production, plus industry highlights.	V		V		
MONTHLY PUBLICATIONS					
Natural Gas Monthly, from September 1995 forward. Entire Publication in viewable format	V		V		

V=Viewable P=Post-Processable

	Internet	Dial-In	InfoDisk	Fax	Diskette
OTHER PUBLICATIONS					
Natural Gas 1995: Preliminary Highlights This Special Focus, which was featured in the April 1996 issue of the *Natural Gas Monthly*, presents events that affected the natural gas industry during 1995.	V	P		V	
Energy Policy Act Transportation Study: Interim Report on Natural Gas Flow and Rates (EPACT) Analysis of natural gas transportation rates and distribution patterns for the period from 1988 through 1994.	V		V		
Oil Production Capacity Expansion Cost for the Persian Gulf Quantifies the cost of expanding oil production capacity for the Persian Gulf based on geologic plays and fields rather than country-level economics. Development costs and volumes are estimated for the next 15 years.	V		V		
Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations 1990-1993 Cost of equipment and operation of oil and gas wells in the lower 48 States.	V		V		
Drilling Sideways- A Review of Horizontal Well Technology and the Domestic Application April 1993 report presenting salient aspects of current and near-future horizontal drilling and completion technology.	V		V		
International Oil and Gas Exploration and Development Compilation of country-level data and assessment of regional trends relating to upstream aspects of global oil and gas supply.	V		V		
Natural Gas Productive Capacity for the Lower 48 States 1984-1996 Analysis of monthly natural gas wellhead productive capacity.	V		V		
Natural Gas Productive Capacity for the Lower 48 States 1980-1995 Analysis of monthly natural gas wellhead productive capacity.	V		V		
Oil and Gas Field Code Master List Comprehensive listing of U.S. oil and gas field names as of November 1995.	V		V		
Oil and Gas Resources of the Fergana Basin (Uzbekistan, Tadzhikistan, and Kyrgysztan) Reservoir level assessments of oil and gas ultimate recovery in the former Soviet Union area.	V		V		
The Value of Underground Storage in Today's Natural Gas Industry Explores the significant and changing role of storage in the industry.	V		V		
U.S. Oil and Gas Development in the Early 1990's Analyses of the growing prominence of smaller energy companies in U.S. oil and gas production	V		V		
ANNUAL DATA					
Natural Gas Supply and Disposition, by State 1994	V P	V P		V	

V=Viewable P=Post-Processable

	Internet	Dial-In	InfoDisk	Fax	Diskette
Natural Gas Summary, United States by Year 1990-1994	V P	V P		V	
1994 Natural Gas Annual Volume 1 data Self-extracting file containing data (in comma-delimited format) that appear in the tables in Volume I of the 1994 *Natural Gas Annual*.	P		P		P
1994 Natural Gas Annual Volume 2 data Self-extracting file containing historical information (in comma-delimited format) found in the tables in Volume II of the 1994 *Natural Gas Annual*. Annual historical data at the national level are presented for 1930-1994. Annual information by State and region is presented for 1967-1994.	P		P		P
1993 Data reported on Form EIA-176 A self-extracting compressed file containing data reported on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition" for 1993.	P				P
1994 Data reported on Form EIA-176 A self-extracting compressed file containing data reported on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition" for 1994.	P				P
Data archive of historical reserves estimates for U.S. Crude Oil, Natural Gas, and Natural Gas Liquids. National, State, and State subregion data published in the reserves balance tables of *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves* from 1977 forward.	P				P
MONTHLY DATA					
Natural Gas Production, United States by Month 1989-forward	P	P		V	
Natural Gas Supply and Disposition, 1989-forward	P	P		V	
Natural Gas Imports and Exports 1989-forward	P	P		V	
Natural Gas Underground Storage: United States Total by Month 1989-forward	P	P		V	
Natural Gas Prices: United States Total by Month 1989-forward	P	P		V	
Natural Gas Consumption by Sector: United States Total by Month, 1989-forward	P	P		V	
SELF-EXTRACTING COMPRESSED DATA FILE ARCHIVES					
Natural Gas Consumption and Prices, for most recent 2-3 years	P	P			
Natural Gas Consumption and Prices, for 1984-1992	P	P			
OTHER REPORTS					
Natural Gas Weekly Market Update Analysis of current price, supply and storage data along with a two week snapshot of the weather in four distinct metropolitan areas.	V			V	

V=Viewable P=Post-Processable

Glossary

Balancing Item: Represents the difference between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

Base (Cushion) Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

British Thermal Unit (Btu): The heat required to raise the termperature of one pound of water by one degree Fahrenheit at or near 39.2 degrees Fahrenheit.

City-gate: A point or measuring station at which a gas distribution company receives gas from a pipeline company or transmission system.

Commercial Consumption: Gas used by nonmanufacturing organizations such as hotels, restaurants, retail stores, laundries, and other service enterprises, and gas used by local, State, and Federal agencies engaged in nonmanufacturing activities.

Depletion: The loss in service value incurred in connection with the exhaustion of the natural gas reserves in the course of service.

Depreciation: The loss in service value not restored by current maintenance, incurred in connection with the consumption or respective retirement of a gas plant in the course of service from causes that are known to be in current operation and against which the utility is not protected by insurance; for example, wear and tear, decay, obsolescence, changes in demand and requirements of public authorities, and the exhaustion of natural resources.

Dry Natural Gas Production: Marketed production less extraction loss.

Electric Utility Consumption: Gas used as fuel in electric utility plants.

Exports: Natural gas deliveries out of the continental United States and Alaska to foreign countries.

Extraction Loss: The reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Flared: The volume of gas burned in flares on the base site or at gas processing plants.

Gross Withdrawals: Full well stream volume, including all natural gas plant liquid and nonhydrocarbon gases, but excluding lease condensate. Also includes amounts delivered as royalty payments or consumed in field operations.

Imports: Natural gas received in the Continental United States (including Alaska) from a foreign country.

Independent: Producers: Any person who is engaged in the production or gathering of natural gas and who sells natural gas in interstate commerce for resale but who is not engaged in the transportation of natural gas (other than gathering) by pipeline in interstate commerce.

Industrial Consumption: Natural gas used by manufacturing and mining establishments for heat, power, and chemical feedstock.

Interstate Companies: Natural gas pipeline companies subject to FERC jurisdiction.

Intransit Deliveries: Redeliveries to a foreign country of foreign gas received for transportation across U.S. territory and deliveries of U.S. gas to a foreign country for transportation across its territory and redelivery to the United States.

Intransit Receipts: Receipts of foreign gas for transportation across U.S. territory and redelivery to a foreign country and redeliveries to the United States of U.S. gas transported across foreign territory.

Intrastate Companies: Companies not subject to FERC jurisdiction.

Lease and Plant Fuel: Natural gas used in well, field, lease operations and as fuel in natural gas processing plants.

Liquefied Natural Gas (LNG): Natural gas that has been liquefied by reducing its temperature to minus 260 degrees Fahrenheit at atmospheric pressure.

Marketed Production: Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations. See Explanatory Note 1 for discussion of coverage of data concerning nonhydrocarbon gases removed.

Native Gas: Gas in place at the time that a reservoir was converted to use as an underground storage reservoir as in contrast to injected gas volumes.

Natural Gas: A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or solution with oi1 in natural underground reservoirs at reservoir conditions.

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

Onsystem Sales: Sales to customers where the delivery point is a point on, or directly interconnected with, a transportation, storage, and/or distribution system operated by the reporting company.

Pipeline Fuel: Gas consumed in the operation of pipelines, primarily in compressors.

Repressuring: The injection of gas into oil or gas formations to effect greater ultimate recovery.

Residential Consumption: Gas used in private dwellings, including apartments, for heating, cooking, water heating, and other household uses.

Salt Cavern Storage Field: A storage facility that is a cavern hollowed out in either a salt "bed" or "dome" formation.

Storage Additions: The volume of gas injected or otherwise added to underground natural gas or liquefied natural gas storage during the applicable reporting period.

Storage Withdrawals: Total volume of gas withdrawn from underground storage or liquefied natural gas storage during the applicable reporting period.

Supplemental Gaseous Fuels Supplies: Synthetic natural gas, propane-air, refinery gas, biomass gas, air injected for stabilization of heating content, and manufactured gas commingled and distributed with natural gas.

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, that results from the conversion or reforming of petroleum hydrocarbons and may easily be substituted for or interchanged with pipeline quality natural gas.

Therm: One-hundred thousand British thermal units.

Underground Gas Storage Reservoir Capacity: Interstate company reservoir capacities are those certificated by FERC. Independent producer and intrastate company reservoir capacities are reported as developed capacity.

Vented Gas: Gas released into the air on the base site or at processing plants.

Wellhead Price: Represents the wellhead sales price, including charges for natural gas plant liquids subsequently removed from the gas, gathering and compression charges, and State production, severance, and/or similar charges.

Working (Top Storage) Gas: The volume of gas in an underground storage reservoir above the designed level of the base. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season.